

THE SOUTHERN STATES

An Illustrated Monthly Magazine
Devoted to the South

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SEPTEMBER, 1893.

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MANUFACTURERS' RECORD PUBLISHING CO., BALTIMORE, MD.

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THE SOUTHERN STATES.

CONTENTS FOR SEPTEMBER, 1893.

Cotton Interests of New Orleans and Louisiana, -	Henry G. Hester.	385
<p>In relation to the cotton industry of the country, New Orleans holds the position that New York maintains with regard to the commercial interests of the country. Handling 30 per cent. of the crop, worth not less than \$100,000,000, New Orleans is easily the greatest market for this product. Mr. Hester, whose position as secretary of the New Orleans Cotton Exchange makes him a central figure in this great traffic, tells in this article what relation New Orleans and Louisiana have to the cotton producing and consuming world.</p>		
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The SOUTHERN STATES is a handsomely illustrated monthly magazine devoted to the South. It presents a great many interesting and valuable articles by well-known Southern writers and men of affairs, who are competent to speak upon their chosen topics. It is published by the Manufacturers' Record Publishing Company, Baltimore, Md. Price 15 cents per copy; \$1.50 per annum.

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One of the most attractive and interesting magazines received by the *Enquirer-Sun* is the SOUTHERN STATES, a new publication issued by the Manufacturers' Record Publishing Co., of Baltimore, the second number of which is just from the press. It is an illustrated monthly devoted to the South and Southern development. The issue at hand is given up almost exclusively to Georgia topics and was intended to be a Georgia number. It will be read with interest by Georgians, and it will serve to attract great interest to this State.—*Daily Enquirer-Sun*, Columbus, Ga.

ITS WRITERS ARE COMPETENT AUTHORITIES.

A magazine that has by error escaped notice before, although richly deserving it, is the SOUTHERN STATES, published by the Manufacturers' Record Publishing Co., at Baltimore. It is a handsomely illustrated monthly devoted to the interests of the South, and presents a great many interesting and valuable articles by well-known Southern writers and men of affairs, who are competent to speak upon their chosen topics.—*Philadelphia Record*.

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THE SOUTHERN STATES.

SEPTEMBER, 1893.

COTTON INTERESTS OF NEW ORLEANS AND LOUISIANA.

By Henry G. Hester,

Secretary New Orleans Cotton Exchange.

The interests of New Orleans and Louisiana are so closely interwoven that to speak of one is practically to include both. While this is more or less the case with all large cities in their relations toward the commonwealths in which they are situated, the merging of interests between city and State is perhaps here more strongly emphasized than is usual. Of the total assessed values for the State, between fifty-five and sixty per cent. are within the city limits. The city not only controls the bulk of Louisiana's marketable products, but by reason of geographical position, and the energy of her merchants, handles and ships a considerable percentage of the cotton produced in a much larger section of the cotton belt. Hence, while Louisiana contributes an important share of the annual cotton crop of the South, we are accustomed to regard it generally in the light of a part only of the production of the New Orleans section, all of which pays more or less tribute to both city and State. This will be made more apparent by a glance at the following :

Year.	Cotton Crop. State of Louisiana. Bales.	Cotton Receipts. City of New Orleans. Bales.
1891-92.....	740,000	2,713,000
1890-91.....	645,000	2,270,000
1883-90, (census) ...	659,000	2,148,000

Considering the State apart from connection with New Orleans's interests, while cotton is its most important crop, its influence is not altogether paramount ; in other words, Louisiana is by no means an exclusive cotton grower, other staple products dividing with cotton the attention of her agriculturalists.

This has been most fortunate during the past two years of extreme depression in cotton, although there is no State in the South which affords better returns to the cotton grower. It is true, the past season's experience does not altogether justify this last assertion, but it must be remembered that 1892-93 will be regarded in the annals of cotton crops as synonymous with disaster to the fleecy staple, just as 1891-92 (the season preceding) will be considered the standard of perfection. What with floods in the great river and tributaries, covering vast tracts of the most fertile lands in the world, and weather conditions to the last degree unfavorable, Louisiana has suffered severely during the season now closing, in common with the entire lower Mississippi Valley. In fact, of the total decrease in this year's cotton crop, which will not amount to less than two and a half millions of bales, about fifty per cent. will fall on Mississippi, Louisiana, Arkansas, Texas and Alabama—all heavy shippers to and via

New Orleans. Louisiana alone will lose not less than 250,000 bales.

Taking, then, the year 1891-92, with its high conditions everywhere as a fairer criterion, Louisiana produced a crop of 740,000 bales out of a total of 9,035,000 for the United States. If we are to accept the United States Agricultural Department's figures revised to accord with the last census, this amount of cotton was grown on 1,158,000 acres, or say an average for the entire State of about sixty-four one-hundredths of a bale to the acre. Careful investigators consider that the government is at least 125,000 acres under the actual facts for 1891-92, but, even if this be the case, the average product would be fifty-seven one-hundredths of a bale, equal to 268 pounds of lint per acre. This would place Louisiana for the "bumper" year about the same as Texas and Indian Territory, twenty-two pounds per acre ahead of Arkansas and fifty-six ahead of Mississippi.

Compared with above, an average of 151 pounds per acre for Georgia, 160 to 164 for the Carolinas, and 172 for Alabama, the exceeding richness of the soil of the Pelican State as a cotton grower is strikingly illustrated. From a bale to a bale and a-half per acre is not uncommon; in parts of some parishes even two bales per acre have been reached, and results are obtained in other products as well as cotton, which justify the claim that Louisiana embraces the garden spot of the world, the fertility of her soil rivalling the far-famed valley of the Nile, a climate of sunshine and bloom with a temperature averaging 50° in the winter and 80° in the summer; long seasons and late frosts, affording the highest results with the least expenditure of capital or labor. No section of the United States holds out stronger inducements to the home-seeker. That the State does not rank higher as a cotton producer (that is, in total number of bales grown) is, as already stated, due mainly to division of agricultural industries, cotton, sugar and molasses and rice standing towards each other as follows:

APPROXIMATE VALUE OF LOUISIANA CROPS—1891-'92.

Cotton.....	\$26,000,000
Sugar and molasses.....	15,000,000
Rice.....	3,000,000
Total.....	\$44,000,000
Percentage, cotton	59
" others	41

It is true that much of the lands devoted to sugar and rice are better adapted to them than to cotton, but the State contains a vast area above and beyond overflow that may be converted into the finest cotton fields in the world, a result only retarded by lack of labor.

An important fact regarding Louisiana cotton production is the general superiority of staple, which gives it a value in proportion to length of fibre above cotton grown on uplands; and it has been found that careful selection of seeds from special plants has enabled planters to greatly improve even on the excellent bend staple, which has for many years held so favorable a name among cotton consumers.

It is proper to remark, however, that the premium for extra staple in American cotton has not been so remunerative within the past two years, the introduction of foreign long staples, principally Egyptian, having proven a serious drawback. Producers of these descriptions in a number of States complain bitterly of the difference, and it is likely if the situation is not speedily improved they will apply to Congress for relief.

As a rule the cotton grower inclines strongly to free trade, his interests being to sell in the dearest markets of the world and buy in the cheapest, both of which have been more or less interfered with by tariff legislation. But whatever his views, he has not complained vigorously hertofore against a tariff that forced him to buy his manufactured cotton goods from American mills at high prices. Now, however, growers of long staples are asking why the same measure of protection given home mills against foreign manufactures should not be accorded to them against foreign cotton growers. An address recently circulated freely among producers, claims that "the importation of Egyptian and Peruvian cotton not only affects the Sea Island of the Atlantic seaboard, which aggregates sixty to seventy thousand

bales per annum, but has d'sastrously influenced values of all of four hundred thousand bales of good to extra staple cotton produced in the Mississippi valley. Mills that purchased thousands of bales of our benders and better staple cotton a few years since only buy a few hundred, and that at a small difference from the common run of staple. As the tariff has enhanced the price of every yard of goods we consume considerably over one-half, so has the free admission of foreign long staple cotton cut us down for those descriptions to prices that are ruinous. We do not wish to argue from the standpoint of free trade or protection. All we ask is to be placed on a level, as cotton growers, with the people who buy our cotton. If we are forced to trade with them, let them be forced to trade with us. If, on the other hand, the restrictions are removed and our markets are thrown open to the world, we are willing to take our chances, but have a right to insist that, until this is done, we should be placed on an equal footing, as an agricultural people, with the manufacturers of the East."

Much can be said of the superiority of Egyptian cotton for certain purposes by reason of its "smoothness, brilliancy of color, lustre and the silky nature of its staple;" but it is claimed that it is used in competition with American where the latter could be made to serve were it not a matter of price. Whatever may be the true state of the case, it is certain that apart from influences that have affected the cotton market as a whole, long staples have suffered, sharing in every depression, but experiencing little or no improvement in premiums over ordinary staples in periods of reaction.

The alleged superiority in ginning, baling and handling Egyptian it is said cannot be entirely accepted as the cause of its successful competition with American, although there is so much room for improvement on our part, the real fact being that we cannot compete with foreign pauper labor. This, of course, refers to extra staples and does not involve an acknowledgment of the South's inability to compete with the world in the production of cotton of a

fair staple, body and color, necessary to supply the general demand.

There is undoubtedly much room for improvement in the cultivation, preparation and transportation of the fleecy staple which necessity will force in the future, all tending towards lessening cost of producing and marketing, and eventually confirming to American growers practical monopoly. Not the least of these will be the opening up of large belts of rich lands such as are embraced in Louisiana and adjacent States, where under proper care profits may be made not obtainable in less productive sections of the cotton belt.

While the trade of New Orleans has suffered greatly during the past year by reason of disaster to the cotton crop, the extent of the decrease has been officially overstated. This has been occasioned by erroneous over-valuation of cotton exports by the Bureau of Statistics of the Treasury Department for 1891-92, to the extent of about eighteen millions of dollars. How far similar errors were made in other customs districts, serving to create a false impression of the comparative trade balances of this and last season, it is not the purpose here to demonstrate, but it is a fact that cotton valuations furnished by collectors of other ports to the Treasury Department were in many cases absurdly high.

The Bureau's published figures for New Orleans made the average value of cotton exported for the year 1891-92 forty-six dollars per bale, or more than nine and one-quarter cents per pound, and that in a season witnessing the greatest depression known to the trade for forty years. The fault lies in the incorrectness of collectors returns, but if the treasury officials were cognizant of this the question is whether it would not have been best to have revised their published data for 1891-92 instead of perpetuating the errors. The treasury's methods of collecting this information, so far as relates to cotton, have been improved during the fiscal year just ended, (June 30th, 1893,) and this season's figures accord closely with facts. In a period like the present, however, when the reports for both years together

are scanned closely to afford an index to the causes of the financial situation, the deductions are misleading. If, as is true, the methods in official valuation of export cotton up to June, 1892, were so loose, how far may the same system have been applied to other articles?

The cotton merchants of New Orleans have perhaps the most complete and perfect system for protection of cotton of any port in the world. Under the auspices of the Cotton Exchange, a thoroughly organized force of competent officials is engaged to watch and protect bales from the time of arrival, until they are placed in the hold of the outgoing ocean vessel. At each depot and press, or warehouse, men are stationed, whose duty it is to prevent waste or over-sampling; to see that all loose unavoidably made is gathered and stored, to be turned over to the receiver, and to report, when necessary, on condition and any other facts that may aid in preventing loss from careless handling or otherwise. Similar officials are stationed on the steamboat and ship landings to guard against petty pilfering, and daily reports are made and filed in the Cotton Exchange of the receipts on board every vessel during loading, with condition thereof, statement of weather and any matters that may affect the cargoes. These officials, under a competent chief and an assistant chief, are in the employ of the exchange. In addition to these, a force of picked men, answerable to the exchange, is engaged in the duties of night watching

aboard vessels and on wharves. The result is that the fullest returns are made to growers shipping to New Orleans and complaints are seldom made of cotton shipped abroad from that port, unless it be of transit cotton beyond the control of the exchange officials.

The large spot business of New Orleans gives to that city special facilities for the purchase and sale of cotton for future delivery. As a natural cotton market, there is generally a sufficient stock on hand throughout the year to protect all contracts, obviating heavy outlays of capital for carrying cotton for speculative purposes. This modern method of hedging and insuring valuations, facilitating rapid economical handling of merchandise, is so interwoven with the world's trade, that no large centre can conduct business without it; and while the bulk of the contract purchases and sales are made in the great markets of New Orleans, New York and Liverpool, they include business for all other cotton centers with which they are directly connected by telegraph.

In spots, and cotton to arrive, New Orleans is the leading market on this continent, while the business in "future deliveries" which is steadily growing, has assumed an importance that divides the palm with Liverpool and New York. The cotton crop of the State is susceptible of great increase, which doubtless will result in time, through immigration, and the latter is likely to follow upon proper dissemination of knowledge of the State's remarkable fertility.



HARVEST SCENE IN A LOUISIANA RICE FIELD.

RICE GROWING IN LOUISIANA.

By Reginald Dykers.

On the broad prairies of Southwest Louisiana a great industry is being built up—an industry of ancient lineage and considerable renown. The strides it has made since its inception in that locality have been broad and rapid. It has brought together a population that is at once energetic, intelligent and progressive, such a population as Louisiana needs in her every section to develop her resources and bring her to that high place among her sister States that is hers by right.

Rice—pure, spotless, palatable, nourishing—should need but little beyond its own merits to make it the most popular form of grain in the United States today. As an article of food it is equal if not superior to wheat, and while it would perhaps be impracticable to substitute it entirely therefor, yet as an adjunct to our daily wheaten loaf what could be more desirable than one of those rare snowy pyramids of rice that our Creole kitchens know how to

turn out in such a state of marvellous purity and toothsome-ness.

The Burmese say that at the beginning of the world God made elephants and birds and fire and water and rice. This simple tradition shows what an important article it was to them. A Hindoo boy is fed on rice for six months after his birth as a process of purification, and then he is generally fed on it all the rest of his life because it is the handiest thing to eat. Even after he has trudged his way through the world and gone over the river to rest under the shade of the trees, his family prepares a "pinda" or ball of rice and offers it with many prayers and quaint fantastic rites to his departed spirit.

That the rice plant is of Indian origin there can be no doubt, and in the Shoo-King, or Chinese classics, the cultivation of it is mentioned as having taken place as early as 2356 B. C. It seems to have been introduced into Europe by the Moors in the Eleventh Century, and in

Georgia and Carolina its cultivation began about the year 1700. Its introduction into Louisiana is of very recent date, no rice having been produced there for purposes of sale until after the war, and there could be no stronger evidence of the success that has attended its culture on the prairies of Calcasieu than the fact that Louisiana today produces more rice than Georgia and Carolina, the crop for this year amounting to 7,500,000 bushels. On these broad, fertile lands, innocent of windy booms, untrammelled by the visionary lines of mythical corner lots, undisfigured by those blatant real estate sign boards that have sprung up all over the West, the hand of industry has wrought wonders. Where in 1880 there was only a sparse settlement, a lumber camp, perhaps, or a lone settler's cabin, there are today busy towns, a host of whirring saw-mills and—fairly miles of rice.

The population is composed largely of immigrants from Iowa, Illinois and other Western States, men who have come into Louisiana because they saw the advantages and the wealth that awaited them. With the latest and most improved machinery they have started in to make the southwestern part of the State a garden in which golden flowers shall grow. Steam plows, traction engines, pumps, windmills, all the busy panoply that one may see amid the wheat fields of Illinois, are puffing and whirring away beneath the soft blue sky of Dixie. During the last year more agricultural implements were shipped to Crowley, a little town in the centre of the rice-producing district, than to any other place in the State except New Orleans. Between seven and eight million dollars' worth of rice are shipped from Crowley every year and the amount is steadily on the increase.

One great advantage possessed by the Southwestern Louisiana soil is its capability of sustaining the weight of the various machines for tilling the soil and harvesting the crop, which the ground of Georgia and Carolina is too soft to bear. Clay predominates, with a subsoil of great hardness and consistency. The general character of the land is somewhat similar to the great

areas devoted to the cultivation of various kinds of grain in the Northwest. The surface undulations, however, are less marked, and the general aspect is one of more complete flatness. In their primitive state every depression formed a pond of slight depth, wherein vegetation of all kinds accumulated and decayed, making a deposit of great richness and fertility. Such a surface arrangement as this, where the water was held in natural reservoirs, would seem to be an ideal formation for purposes of rice culture, as the gully could be closed at some convenient point and the water allowed to run from one depression to another as suited the wishes of the rice planter.

One great drawback to such an arrangement, however, was found to be the superabundance of water which would at times accumulate in the basin, sufficient in its volume to break any ordinary levee erected to hold it in check. This danger is obviated, however, by an improved system of ditches and embankments consisting of a large ditch dug through the centre of the basin, with a strong gate at both ends, so that should any excess of water be present it can be safely and rapidly passed off, and prevented from overflowing the adjacent fields. Levees are also constructed on the outer edges of the field and the water conducted past them and stored for use when required. The great central drain has gates opening from it into each field, and there are also openings in the outer levee so that water can be let in at any time when it is desired and yet kept away from other fields where it is not wanted. The separation of different sections of the plantation by cross levees, thus cutting it up into plots of convenient size, is very necessary, especially at harvest time.

In order that some idea may be obtained of the enormous amount of ditching and leveeing required on a rice plantation it may be stated that Col. Screven, of Savannah, Ga., one of the best informed rice men in the United States, in his testimony before the Ways and Means Committee at Washington in 1890, calculated that a well equipped

place containing 640 acres would have drains and embankments footing up to 115 miles. To make all these levees and ditches would be too great a task for the spade, and a ditching machine, consisting of a huge plow-like arrangement drawn with a capstan, is used. These machines cut a ditch two feet deep and three feet wide, and throw the dirt out to form the levee, which is completed and put into proper shape by a man who follows with a spade. Three men can thus make levees containing six or eight hundred cubic feet of earth in a day, and at an expense of about two cents for each yard of work. Everything is done systematically, and with an eye to reducing expenditure in every possible way.

To attain the best results rice should be planted towards the end of March, or in the early part of April, as earlier planting sometimes rots in the ground or is stunted by cold weather, and later planting as a rule does not yield so well. Climatic conditions, however, maintain a certain margin around every rule of this kind. The preparation of the soil before the seed is put in is a matter of great importance. Mr. R. S. Stoddard of Welsh, La., one of the most intelligent and progressive rice planters in the State, says in a recent

letter to the writer that to this imperfect preparation of the soil is due a vast amount of loss manifested by undergrowth, uneven ripening, and failure to come up through the ground. The soil should be thoroughly pulverized after ploughing, and the additional work will be amply repaid by the increased output.

The sowing in Southwest Louisiana is mostly accomplished by machinery of various makes, drills and broadcast seeders being both in extensive use. The White Honduras rice is the variety most commonly used, although the Carolina rice is very popular in some sections of the State. On rich soil between one and two bushels are generally planted to the acre, some planters differing from others in their opinions about the amount necessary to obtain the best results. The prevailing tendency now, however, is toward heavy sowing, and to endeavor to procure a good stand by planting more seed, instead of planting sparingly and expecting the rice to stool sufficiently to make a good stand. Conditions of weather and soil are not always favorable to this stooling process.

The time that elapses after the rice has been planted until it makes its appearance above ground depends



FLUME FOR CARRYING WATER FROM THE RIVER TO A RICE FIELD.

largely on the condition of the weather, but if all conditions of weather and soil are favorable it should show itself in about a week. Early planting is often slow to appear, while rice that is planted in the latter part of May or in June will sometimes be above ground in three days. Water is generally turned on the rice soon after it is planted for the purpose of making it sprout, and for that reason this first flooding is called the "sprout water." It usually is allowed to remain on the field some twenty-four hours, and has not only the effect of sprouting the rice, giving it an early start, but it settles the soil, filling up all the cavities and making the young plants come up evenly. Another flooding known as the "stool" or "stretch water" is turned on when the plants are about six inches high, and should only be about three inches deep to start on, being increased in quantity as the rice grows. When the growth has reached some two feet in height, if the weather is warm, deep water should be kept on it until the crop begins to get ripe.

In Louisiana, owing to the firmness of the soil, self-binding harvesting machines are used with great success and it is only a few of the small farmers who now use the sickle and cradle. An average yield per acre is about twelve barrels. A great deal of trouble is experi-

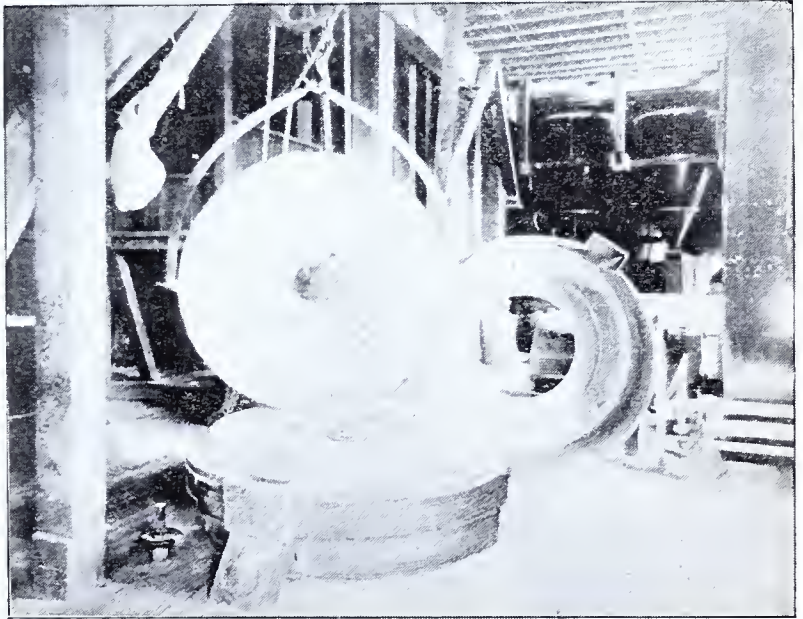


REAPING AND BINDING RICE.

enced from the attacks of "rice birds," which devour the grain with the greatest avidity, and produce the greatest amount of havoc. The damage that is sometimes wrought by these little pests is truly enormous and all sorts of means are resorted to to scare them away. Scarecrows answer the purpose after a fashion, and animated ones, armed with some sort of a firearm, generally succeed in dealing death and destruction among the pestiferous little creatures.

Very few, if any, planters clean their own rice. After it has been threshed it is shipped to a rice mill, either in New Orleans or some other point, and there cleaned. The process of cleaning is one requiring great nicety, and the value of the cleaned product is considerably dependent on how the milling is done. The rice is first screened to remove all trash and so forth, and is then conveyed to two stones, about five or six feet in diameter, and some eight or twelve inches thick, one of which revolves, while the other, called the "bed stone," is stationary. The distance between these two stones is about two-thirds the length of a rice grain, and the theory is that the revolving upper stone produces a sort of air suction which raises the rice up on end at an angle of about forty-five degrees. The husk is broken open and the grain drops out, the chaff being blown away by means of a fan, and the rice is then taken by spiral conveyors to the pounders, egg-shaped vessels in which elongated cone-shaped upright pestles are continually working, and they remove by their continual agitation of the grain, the yellowish coating which it still retains, and impart to it a creamy tinge. The stuff that is removed is known commercially as "rice bran," and

commands a price of about ten or twelve dollars a ton. After being thoroughly pounded the rice is put through a system of screening and fanning processes which effectually separate the bran from the grain proper. The rice is afterwards carried to the brush or polishing machine, in which as its name implies, there is a rapidly revolving brush which rubs off the inner cuticle and imparts a polish to the grain itself, the residue being a fine powder or flour called "rice polish." A combination of graduated screens then divides the rice into the several grades by which it is known commercially on 'Change, and it is then ready to



RICE MILL STONES.

be barrelled and put on the market.

The prices that have prevailed for rough rice lately have not been what they should be by any means. The cause of this lies directly in the want of proper facilities for the storage of the crop, present conditions bringing about an enormous dumping upon the market at one time. What is needed are warehouses and elevators in which the rough rice can be stored and graded as is done with other grains in the North and West. This method would have the effect of straightening out things at once, and there is hardly any doubt but what it

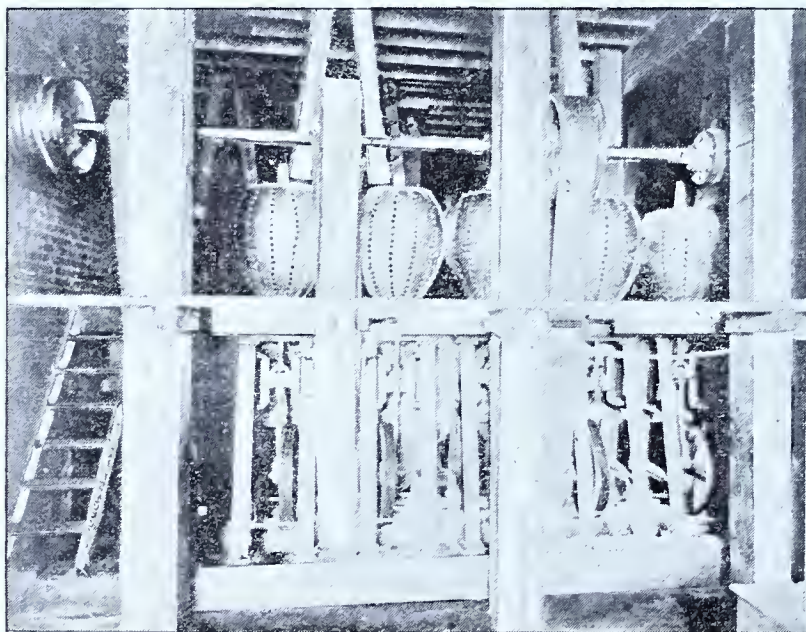
will be in vogue before very long, though the present tendency among the planters seems to be towards securing more mills and creating a greater competition for the rough product. This is a step in the right direction, but a sort of side-long one, for were the warehouses and elevators to be erected, and the planter thus enabled to keep from rushing his crop immediately on the market, the mills now existing would be found amply sufficient for all purposes.

The necessity for reducing the cotton acreage gives rise to the question of whether rice can be successfully grown on a large portion of the area now devoted to cotton. What little experience has been had with its production

not every part of South Carolina. We have seen it growing finely on the side of a mountain in this State. The experiment is well worth trying."

Certain fields that have borne cotton and have been sown in rice as experiments in parts of the Carolinas have yielded fairly well, and, in some instances, exceedingly well, and though no attempt has yet been made on a sufficiently large scale to set forth accurately the advantages of substituting it for cotton, yet it is safe to say that rice can be grown at a fair profit on lands now in cotton to a sufficient extent to reduce the present acreage of the fleecy staple at least twenty per cent.

Besides cotton lands there are in the



RICE POUNDERS.

on lands of this character would seem to indicate that it could be done. In response to a suggestion of Messrs. Dan. Talmage's Sons, one of the largest rice milling and dealing concerns in America, that some attempt should be made to substitute rice for cotton, the *Charleston News and Courier* of January 27, 1893, says: "The suggestion is a good one, we think; it is well sustained by the arguments of the gentlemen who offer it. There is probably no reason why the crop should not be grown on the uplands in a large part if

South enormous tracts of land of a description fit for hardly anything but rice culture, and at present yielding no revenue, or, at any rate, but very little to its owners; in fact it is estimated that in eight of the Southern States there are between 70,000,000 and 90,000,000 acres of land on which rice can be grown. The State of Louisiana contains more of this character of land, of a marshy, and, for other purposes, valueless formation, than any other State. The enormous possibilities open to the rice industry in the United States are

thus made plainly manifest, for were all these lands, the greater portion of which are now lying idle and going to waste, to be put in rice, the annual production of the country would amount to 80,000,000,000 pounds. In this connection the following figures, compiled by Messrs. Dan. Talmage's Sons, of New York, showing the production for the whole United States from 1860 up to the present time, may be of interest ;

CROP OF	CAROLINA.	LOUISIANA.	TOTAL U. S.
	Pounds.	Pounds.	Pounds.
1860.....	103,600,200	1,679,000	105,279,200
1865..	7,500,000	2,740,190	10,240,190
1870.	40,800,000	14,088,880	54,888,880
1875.....	42,460,800	41,400,000	83,860,800
1880.....	59,927,400	51,941,590	111,868,990
1885.....	50,450,000	100,050,000	150,500,000
1890.....	49,000,000	87,750,000	136,750,000
1891.....	45,887,400	109,778,200	155,665,600
1892.....	*50,000,000	*205,000,000	*255,000,000

*Estimated.

"Carolina" includes that grown in North Carolina, South Carolina and Georgia.

Rice planted on uplands is grown without flooding, and is arranged with sufficient distance between the rows for a horse cultivator to be worked. Aside from the matter of flooding, its cultivation and harvesting are very much similar to the methods employed in the treatment of lowland rice, and the general character of the rice raised on uplands is very fine, the grains being hard and flinty, and able to take on a very high polish.

A few words about the food value of rice will hardly be amiss. Some data prepared by Dr. Frankland will serve to illustrate in a very forcible way the comparative value of different foods. He takes a number of common articles of nutriment and figures out what weight of each it will take to give sufficient strength to raise 140 pounds

10,000 feet high, as for instance, if a man weighing that number of pounds were to climb up a mountain side 10,000 feet, how much of each kind of food would he have to consume to enable him to do it. The following table is what he has arrived at :

Beef.....	3½ pounds.
Potatoes.....	5 "
Bread.....	2½ "
Wheat Flour.....	1½ "
Oatmeal.....	1¼ "
Rice.....	1½ "

Oatmeal is the only one of these that is ahead of rice, and it is a tie between rice and wheat flour. Then, too, this test from a strictly muscular standpoint is hardly a fair one, as it is principally as a flesh producer and general nutriment that it excels. Very low grades of rice have been fed to stock with the most gratifying results. As a food for poultry it can hardly be excelled, though there is a foolish superstition that chickens fed on it lose their sight ; but as no one can produce a fowl so afflicted, or even rendered so nearsighted that it will not perceive a grain of rice quite a distance off and run after it, the tradition seems to be entirely without foundation. Only sweepings and broken rice, however, are ever used for barnyard purposes. Looked at from any standpoint whatsoever, the cultivation of rice in Louisiana is an industry that has not only a great past but a glorious future, and the casual observer, the practical farmer, or the keen-eyed capitalist who traverses those fair and fertile rice fields near the Texas line, that stretch away until they get shadowy in the distance and the rice and sky blend together, cannot but foresee the grand harvest that is to be, the harvest that will overshadow in its greatness the products of China, India, Japan.



FRUIT STAND IN THE FRENCH MARKET, NEW ORLEANS.

LOUISIANA ORANGES.

By Henry H. Baker.

It may be a surprise to many to know that Louisiana is an orange growing State. Until very recently the pomologist of the Agricultural Department at Washington seemed to be ignorant of this fact, and there was no other means by which the public could procure statistical information regarding the Louisiana orange production. There are evidences, however, to show that citrus fruits were grown in the lower parishes bordering on the Gulf of Mexico by the earliest settlers, and the variety then must have been of a very superior quality, for the natives have studiously avoided the introduction of the so-called fancy varieties. The old "Louisiana sweet" could not be improved upon, they said. Orange planters in this State, of late years, however, have been awakened, as it were, and are experiencing the progressive spirit which is abroad in the Southland, and are introducing new methods not only in the cultivation and handling of the crop, but in forcing earlier production by propagating budded trees. The sweet seedling groves are no longer considered profitable as compared with those of the budded trees, and at the present time nine-tenths of the trees planted are budded on the sour and bitter-sweet stock. It is estimated that 20,000 or 30,000 young trees in this State were placed in orchards the past season, and as many more will be transferred from the nursery to groves the coming fall.

The section of Louisiana below the city of New Orleans, on the Mississippi river, is especially adapted to the propa-

gation of citrus fruits. It is the most beautiful truck country in the South, being fertile beyond description and possesses the great advantage of being near a good market. This rich alluvial district would, no doubt, seem a veritable paradise to the struggling farmers of the far West, who year after year have had their homes made desolate by the frightful visitations of blizzards and cyclones. A Floridian who had heard of the fertility of the soil on the lower Mississippi, determined to visit that section of the State and ascertain the facts for himself. He was asked afterwards what he thought of the "Lower Coast" country, as it is called in New Orleans. He said:

"It would be almost impossible for the imagination to conceive of a more beautiful and fertile stretch of country than that which I visited below New Orleans on the Big Mississippi. This tremendous engine of mischief and peril to the residents of the upper parishes seems to lose its vitality and strength when it reaches the lower portion of the parish of Plaquemines, the orange district. There it lazily spreads itself out from bank to bank as if resting from its mad and cruel rush, and from its stillness appears more like a beautiful lake than like the mighty current which annually carries destruction and ruin to the upper country. The parish of Plaquemines is especially favored for the cultivation and propagation of citrus fruits. Its proximity to the Gulf of Mexico and river insures it almost from severe freezes and renders profitable orange growing almost a certainty." "If I owned any of this

soil," said he, "I would ship it home and sell it as a fertilizer."

The Lower Coast produces annually great quantities of fruit and vegetables for the early market, and a large number of families are supported and educated upon the vegetable crop, which invariably is produced in the orange orchard. In other words, many poor laborers earning a dollar a day a few years since are now independent, having supported their families on trucking the ground while their orchards were growing.

In setting out an orchard as high a piece of land as possible should be procured and ditches dug a distance of 100 feet apart, then plow the land and sow down the place in cow peas. When the peas are in flower, turn them under to rot; then harrow, and you are ready to plant your trees. Young orange trees are very tenacious of life, and if one has the slightest idea of tree planting ninety-five per cent. of the trees will grow. If budded trees are planted you will be repaid by seeing them fruit the second year, and the third year quite a handsome crop will be the result of good cultivation and attention.

Louisiana produces annually about 450,000 boxes of oranges. This fruit comes into the market considerably earlier than either the crop of Florida or California, and therefore should command a good figure. The orange crop of the world is marketed in the following manner: Jamaica in August, Louisiana in September, Mexico in October, Sicily and Valencia in November, Florida in November and December, California coming in last in December and January. These delicious, juicy and delicately flavored Louisiana oranges are not known except to a favored few, who eagerly avail themselves of an opportunity to procure them, knowing the superiority of the orange to any other. With all the superiority that is claimed for the Louisiana oranges, it might appear strange to the uninformed that they are not more generally known. The reason is very obvious, however, to those who have the advantage of being posted in the matter and knowing the crude methods employed in gathering and

shipping the crop. The Louisiana orange crop is generally disposed of in the months of May and June, after the fruit has begun to appear and when a fair estimate of the probable output of the grove can be made. The crop is sold upon the tree, and the purchaser has to pick it at his own expense, and pay in cash one-half of the price agreed upon at the signing of the contract and the other half in good bankable notes made payable before the crop is taken from the trees. It will be readily seen that the orange grower takes no chances; all the risks are assumed by the purchaser, such as are occasioned by storms and droughts, the visitation of which sometimes materially lessens the value of the crop.

When the harvest season commences in September a fleet of luggers is made ready to transport the crop to market as fast as picked, and Italians and negroes are employed to "break the crop," receiving as compensation from \$1.50 to \$2.00 per day. An expert hand will pick ten barrels per day. These hands are usually furnished with ladders with which to ascend the trees and with pouches or bags to receive the fruit. It is surprising to witness experienced hands "break" the oranges. It is done by a quick motion of the wrist after grasping the orange tightly in the hand. When the pouch is full it is taken down and emptied in a pile conveniently located for removal to the lugger which is moored to the levee in front of the grove.

This mound of oranges is sometimes left for days covered with a tarpaulin to keep out the dew or rain, as dampness is very damaging to the orange, particularly when confined in the hold of a boat. When ready to ship, the fruit is thrown into hamper baskets, which are carried to the lugger upon the heads or shoulders of the men, who dump their loads into the hold of the boat like so many potatoes. The lugger having received her load either proceeds to New Orleans under sail, or if the wind is unfavorable she is towed up by steam and landed at the space allotted by the city for a lugger landing at the French Market, where the

oranges are again thrown into baskets, then into carts, which deliver them to their destination at some assorting warehouse. They are again basketed and dumped on the floor, where they are assorted, barreled and boxed and invariably marked "Choice Florida Oranges." The writer questioned a dealer regarding this deception and was told that Louisiana oranges were not known in the Northern market, and besides they did not have the keeping quality of the Florida orange, and therefore it was not desirable to have the fruit trade know that the orange was Louisiana grown. "I dare say," said he, "if the Florida fruit was handled like that of Louisiana it would be in as little demand."

The constant rough handling of this naturally delicate orange from the time of its picking until it reaches the market has done much to militate against its sale and depreciate the value of the fruit even here in Louisiana. This crude method of handling the orange in the lower Mississippi district of Louisiana was no doubt necessitated by the lack of adequate transportation, and also by the absence of intelligent buyers. There will be no excuse for this in the future. This rich alluvial orange section, which extends from New Orleans on both sides of the Mississippi river nearly to its mouth, a distance of over 100 miles, is now pierced by railroads, furnishing to the residents every facility of quick and cheap transportation.

There are several large orange groves on the lower Mississippi river below New Orleans, but the greater number are small properties, consisting of from 500 to as many thousand trees. The largest grove is about sixty miles below the city, and is owned by the Bradish Johnson estate. Through the courtesy of Mr. Chapman, the manager of the properties of this large estate, I was able to secure the following data regarding the output of their orange farm from 1880 to 1892, a period of thirteen years. I will give it here that the reader may judge of the value of an established grove. This grove occupies about 120 acres, and contains 12,582 trees, of which 9535 are bearing, the crop of

which has been sold from year to year in the following order:

1880.....	\$ 12,000
1881.....	400
1882.....	9,000
1883.....	5,540
1884.....	9,000
1885.....	12,000
1886.....	700
1887.....	18,000
1888.....	20,000
1889.....	20,000
1890.....	23,000
1891.....	40,000
1892.....	25,000
Total.....	\$195,000

In the year 1881 there was a freeze, which naturally affected the fruit, but otherwise did not injure the grove. The management of the Bradish Johnson Orange Farm has just perfected arrangements for the packing and shipping of the coming crop, which will yield, it is calculated, 35,000 or 40,000 boxes, and has been sold, it is said, for \$30,000. The crop of 1890 yielded 18,781 barrels, and the crop of 1892, 17,713 barrels. This latter crop was allowed to remain on the trees, however, until many of the oranges fell to the ground and were lost, reducing the output considerably.

The modern system to be introduced on the Johnston place is as follows: The owners of the plantation will establish a packing house there adjoining the railroad track. A switch will be built sufficiently long to accommodate fifteen cars at a time. The fruit will be stem-cut by a patent clipper with a scoop attached into which the orange drops when the stem is cut, the picker's hand only touching the fruit once when he puts it into the canvas sack at his side. When the sack is full the man descends the ladder and puts the oranges in grove boxes which are set around the tree. A wagon comes and takes the boxes to the packing house where the fruit is poured into sizing machines. These machines are to grade the oranges to the number required to fill a box, varying according to the size of the fruit. So when one sees a box of oranges branded 176 it does not mean that some one has laboriously counted out 176 oranges and deposited them in the box—the machine has done the task. From the sizing machine the fruit goes to the packer in the house who stands behind the table or in the pit. This

man takes an orange in one hand, the wrapper of paper in the other, wraps the orange and packs it in a box. When the box is full it is sent to the nailers and is nailed up. The box is then branded, the size marked on it, and it is then put into the car.

Orange Farm will produce from 100 to 115 carloads of oranges, making altogether from 30,000 to 35,000 boxes, or about 5,300,000 oranges. The crop will be taken off in about six weeks, commencing on the 15th of September. Messrs. Caron & Oteri, the purchasers of the crop on this place, have made arrangements with all the railroads running out of New Orleans to transport their crop without delay in refrigerator cars. They have registered a brand for the fruit they are to pack in the grove, and hereafter it will be sold as stem-cut Louisiana fruit packed in the grove. Messrs. Caron & Co. have interested with them a large dealer in Florida fruit who also owns plantations in Florida, and he, as well as his associates in business, ridicule the idea that the Louisiana orange will not ship as well as the Florida fruit. It is the opinion of those interested in oranges in this section that the introduction of Florida and California methods in picking the fruit will greatly enhance the value of the orange estates in Louisiana.

Budded trees give much quicker returns than sweet seedlings, such as constitute the grove of Bradish Johnson, that grove having taken at least ten or fifteen years to come into profitable bearing. Mr. James Wilkinson has a small grove of budded trees mostly Mandarins and Satsumas. They were two-year old sour stock with a one-year old sweet bud. He planted 500 trees in 1889, and in 1891 got from these trees 30,000 oranges which he sold for little over \$300. He planted and cultivated vegetables among these trees to improve the land and keep the trees well worked, and the vegetables are sold for enough to pay for all the cultivation and attention given the orchard. Mr. Wilkinson estimates that his trees, planting, etc., cost him about \$1 each. At the present time he has about 1000 trees and expects to get \$1000 for the coming crop.

Messrs. Moore & Dameron, two young merchants in New Orleans, concluded to establish an orange grove on the Lower Coast. In March, 1890, they purchased about forty acres on the river and planted 3000 trees in the grove. Their trees were three years old when set out, that is, two year's sour stock with a one year old sweet bud. These amateur farmers had their work to attend to in the city, therefore of necessity had to have hired help, and they seldom visited the place more than once or twice a week. This little plantation is one of the prides of the Lower Coast and their success just goes to show what can be accomplished by intelligence and enterprise. This place is now coming into bearing and could be sold at any time at one hundred per cent. advance on their outlay. Last season they shipped to market not less than \$1000 worth of truck. The present season they probably will not ship as many vegetables, but they will have over 5000 nursery orange trees to dispose of at \$500 per thousand. The writer thought a statement from them might be interesting, and it is given here:

"In answer to your questions as to the usual method of starting an orange grove on the Lower Coast and the way to make the place self-sustaining until the grove comes into bearing, I will say that what information and experience I have is cheerfully given, believing that the more the advantages of the Lower Coast are known the greater will be the development. In commencing the grove, the ground is first plowed and put in good order, and, as good drainage is essential, ditches are dug to carry all water back to the lowlands. In December, January or February the young trees are planted in rows 16x16 or 20x20 feet, according to the variety.

"Only budded trees on sour stock are recommended, as the sweet seedlings are subject to *mal de goma* or 'sore shin,' a root disease which has destroyed thousands of them in Florida, California and Louisiana. Budded trees come into bearing much earlier than sweet seedlings, and yield profitable crops in four years. Choice varieties of one year buds on sour stocks of two years

old are bought at fifty dollars per hundred. These trees are in every way superior to those of the same age which we get from Florida. The orchard is not planted flat, the rows being slightly ridged to give surface drainage. Very little pruning is practised and a low growth is encouraged. Trees thus cultivated are hardier and less liable to be injured by severe cold. Clean cultivation in the orchard is practiced, and there is no better way to do this than by planting truck between the trees. After the truck crop has been removed, the ground is plowed and generally put in cow peas. Besides the large amount of nitrogen and potash they contain, they are of great benefit, acting as a mulch and keeping the ground cool during the hottest and driest weather.

"Cultivation is discontinued the last of August, in order that the trees shall not be kept growing too late in the fall. The scale insects, which have ruined so many orchards in California, are not nearly as destructive with us. The worst varieties we have never had. There are several very efficient emulsions that the scaly trees are sprayed with. When planting an orchard, care should be taken to buy trees free from scale, and little trouble will result. As to making a place self-sustaining, onions pay well, and there is no surer truck crop. They keep a long time and can be held for a good market. Sixty to eighty barrels per acre is a good yield, 100 barrels sometimes being made. They can nearly always be sold for \$2.50 per barrel. Sweet and Irish potatoes pay very well, early cucumbers always do, and watermelons bring good prices and are safe to plant. All these crops, except potatoes, are very beneficial to young trees cultivated around them, and this should be taken into consideration in profits.

"One of the best methods of making a place self-sustaining is raising nursery trees, for which there is always a ready sale. The operation of budding is not difficult, though there is much to learn before one becomes expert. It costs from \$30 to \$50 to have 1000 trees budded. By following the policy of

raising truck and nursery trees, any energetic and industrious man can make his place self-sustaining. Naturally the Lower Coast is superior in many ways to Florida or California, and only needs men of intelligence and energy. That she will have them before long is certain, and will soon be the garden spot of the South."

ROBERT S. MOORE.

There has been question for some time among American horticulturists as to the extreme age at which orange trees will bear well and produce good fruit. Some maintain that an orange tree, no matter how much care is put upon it, will slowly wither and die after it has reached a half-century of growth. Others have argued that about seventy-five years is the limit of usefulness of a well-cared-for tree. Several American horticulturists, who have been traveling along the Mediterranean sea, have recently found trees over 120 years old that are still producing fruit of excellent quality. On the Island of Elba, where Napoleon was banished, there is an orange grove of over 700 St. Michael orange trees that were planted by an Italian in 1781, and it produced last year over 1800 boxes of fruit, but it produced four times that quantity twenty-five years ago. There are several small orange orchards in Southern Italy that are over eighty years old and are still productive of large quantities of fruit. On the Island of Malta, James Pellman, the famous American horticulturist, found one orange tree that there can be no doubt is 142 years old, and that yielded several boxes of fruit last year. It is even alleged that in the Azores there are orange and lemon trees over 200 years old that still bear fruit, but there is no good authority for the statement. Louisiana has quite a number of old groves, but it is almost impossible to ascertain exactly when the trees were planted. It was scarcely more than a century ago, however, that Florentine Buras planted the first regular orange grove in Plaquemines parish, at a place known as Tropical Bend, on the west bank of the river about sixty-five miles below New Orleans.



COLISEUM SQUARE, NEW ORLEANS.

NEW ORLEANS: THE SOUTHERN METROPOLIS.

By Frederic J. Cooke.

To the visitor who for the first time sees New Orleans, there are presented a thousand and one sights that are novel, curious, quaint, beautiful, picturesque, unlike anything that can be seen elsewhere upon this continent of ours. In certain elements of life, business, industry and politics our great cities closely resemble each other, differing rather in degree than in kind, but New Orleans presents at first sight and on close study, a never ending succession of scenes that are both novel and interesting. One's impressions embrace such a range of emotions and sensations that a record of first thoughts passes out beyond the limits of practical possibility. One is surprised by the striking contrasts in architecture, amused by the quaint shops and shop keepers in the French quarter, attracted by the enormous markets scattered throughout the city, astonished by the filth of the surface sewers in contrast with the extravagance of the

rose gardens, bewildered by the blare of seemingly continuous parades, allured by the curious old absinthe shops, captivated by the beauty and grace of the women, entertained by the shopping promenades, delighted by the dainty Creole cuisine of the New Orleans homes—in short, the stranger passes rapidly from one emotion to another until he travels the entire range of human sensations.

And the people of New Orleans, too, present nearly as many differing phases of character as their city shows. They are typical of the city in temperament and character. Reared to resent a personal affront and to protect their own and their family honor, they as quickly forgive and forget when the occasion demands. In public matters they are equally as impulsive, fierce in open denunciation of any miscarriage of justice, outspoken in mass meeting, saying nothing they will not carry out, and

forgetting the whole occasion within twenty-four hours.

The sense of justice is perhaps more strongly imbedded in the hearts of the people of New Orleans than in any people in the country. The great labor strike of 1892, when 30,000 workmen went out and paralyzed the commerce of the city for nearly a week, besides putting every man, woman and child to personal discomfort, proves this assertion. For the first three days of this strike everybody in New Orleans took the whole affair as a huge joke, walked from three to eight miles to business or shopping, baked their own bread, used oil lamps or candles instead of the usual gas or electric lights, relied upon their neighbors for the news of the day—the daily newspapers having practically suspended publication—drove their own drays and carriages, and enjoyed the situation as much as the strikers. Yet, on the fifth day, smarting under a sense of oppression and the utter injustice and hostility of the leaders of this great strike, such ominous mutterings about righting the situation by the people were rife that the strike collapsed as suddenly and as peacefully as it started. It was because the people of New Orleans were aroused, and the leaders of the strike remembered the Italian episode of March, 1891. The

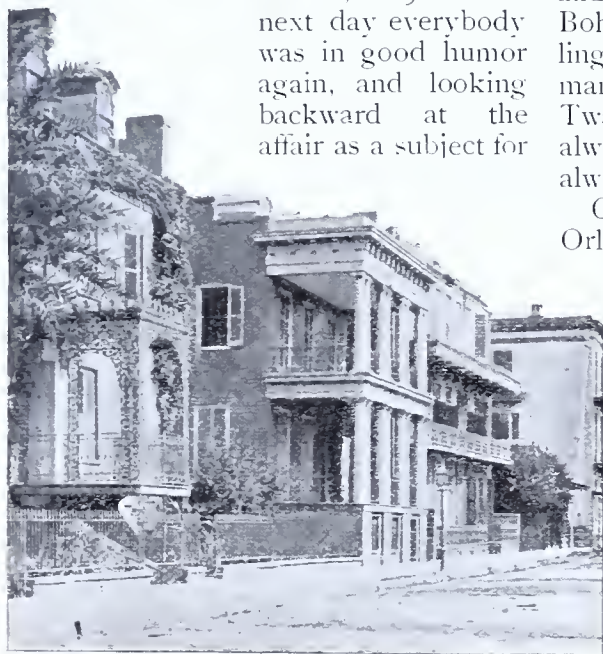
next day everybody was in good humor again, and looking backward at the affair as a subject for

bantering reminiscence. Such swift changing of human emotions is an indication of the temper of the people in New Orleans.

Social life in New Orleans offers an interesting field for study. It grades from the ultra-Bohemian set, at whose midnight orgies the wine flows fast and free, up to the ultra-fashionable class, whose entertainments equal in their lavishness and brilliancy the best that is found in metropolitan life anywhere in the country. The cosmopolitanism of the former set is equalled by the exclusiveness of the latter. Besides these two sets, which embody the gayety and refinement of the city, there are the literary, dramatic, musical and artistic circles as well as scores of clubs devoted to various specific purposes. Athletic and gymnastic clubs abound. Among the best of the social clubs are the Pickwick, Boston, Chess and Checkers and the Commercial, and the women also have their clubs. Socially New Orleans offers an infinite variety of entertainment, and the pleasure seeker need have no fear that time will hang heavy on his hands in this a pleasure-loving city.

During the winter there is a never-ending round of social events, ranging downward from French operas, cotillions and dinners to the mad frolics of the Bohemian sets. The curious commingling of work and pleasure is nowhere so manifested as in New Orleans. Mark Twain once said: "Half the city is always on a parade and the other half always looking at it." So it is, socially.

One of the chief charms of New Orleans is its streets, with the ancient little mule car, and the fervor with which the people cling to their traditions and customs, as well as to their promenades on the shopping avenues. Nowhere in an American city can a boulevard be found more brilliant by night or more interesting by day than the famous Canal street. There, of an afternoon, the whole city seems to resolve itself into an endless procession along the promenade. Here passes the dark-eyed Creole,



ON RAMPART STREET.

the flower girl cries her boutonnieres and roses, the club men lounge idly in their chairs on the club galleries, the gamblers lean lazily against the iron posts on the banquette (sidewalk,) here struts by a tenor from the French opera, there a Creole dressed in black, with waxed mustachios and a red rose upon the lapel of his coat; now it is a party seeking the cafes where absinthe-anisette fascinates, the policeman lazily swings his club between whiffs of his cigarette, the music from the theatre orchestra floats out across the air—and thus the throng moves on. And in the neutral ground in the middle of the street, tinkle the bells of the picturesque mule cars passing in an eternal procession only equalled by the stream of humanity upon the sidewalk. Romance, beauty, gallantry, fondness of display, and all the pyrotechnic abandon of New Orleans are grotesquely pictured in this afternoon promenade on Canal street. After the promenade the little mule cars go staggering homeward freighted with the promenaders, and then New Orleans dines!

There is a world of meaning in that word. In the average American city, dining means no more than lunching, and a hurried lunch, too. But in New Orleans dining is a fine art, an exact science. New York may possibly possess the art as does New Orleans, but other American cities—never. With river shrimp, crawfish bisque, red fish court de bouillion, fish *ouliè*, gumbo, chicken à la Creole, potatoes *julienne*, a salad, an omelette soufflée, café noir, some brandy, yes,—ah, my friend, you have never dined, you have not eaten the French Creole dinner? Then you have not yet lived, no. Such would be the Creole's thoughts with these dishes to select from. And the Americans, educated in their cuisine by the universal Creole cook, have grown to dine in the same way and with the same French customs, including the bottle of table claret or white wine. It is astonishing how universal is the use

of table wine at the New Orleans dinner table. Everybody, from the richest merchant in the city to the poorest laborer, enjoys his bottle of table wine with his dinner, and the consumption of claret is enormous. It is in New Orleans that the poor, in going to market in the morning, never forget to send the decanter or the empty bottle in the market basket for a refilling of wine for dinner. However frugal the dinner, the wine is omnipresent, as sure of everyday consumption as are the absinthe and the cigarette of the Creole.

Of public squares and monuments New Orleans possesses its full share, ranging from the famous equestrian statue of Jackson, facing the French market and backed by St. Louis Cathedral, to the monument erected to Margaret, a philanthropical woman of local fame, and the first woman in America to be honored with a monument. Then there is the well-known Henry Clay statue on Canal street, where great public meetings have been held for decades past, and which is now about to be removed to a more secluded spot through the machinations of the electric street railway companies, despite the protests of an indignant public. The Lee statue up St. Charles street cuts a magnificent silhouette against the blue sky, towering high above the streets upon a beautiful, chaste shaft. Facing the levee at the head of Canal street is a slender marble shaft raised in commemoration of the reconstruction period, when an engagement took place on this spot and



ON ESPLANADE STREET.

a number of lives were lost. In Lafayette Square, nearly in the centre of the city, rises a statue erected to the American philosopher, Benjamin Franklin, while statues and monuments of minor importance are scattered throughout the city. The famous squares of Congo, Jackson, Coliseum and Lafayette are only excelled in historical reminiscences by the natural floral beauties of such public parks as Audubon and Lower City Park, the former squares being celebrated by

great mass meetings touching public questions of importance, and Audubon Park as the scene of the World's Exposition, now transformed into a magnificent public resort, while Lower City Park possesses wonderful natural beauties as well as romantic traditions as the once famous local dwelling ground of the Creole population. As volumes might be written on these parks and squares from either an historical or sentimental standpoint, the mere enumeration of them is sufficient to

recall tales and legends, and details must be left for the Louisiana historians.

A feature of New Orleans life and one which every writer who visits the city singles out for description, is the quaint yet wonderfully convenient market system. Like most semi-tropical cities, New Orleans possesses markets which, for great size and the diversity of articles for sale, are veritable bazaars. Scattered over the city these markets meet you almost at every turn, tempting you to

loosen your purse strings, whether it be for a cup of black coffee with the universal dab of fried dough, or a paper of pins, a bolt of calico, a basket of fruit, game, meat, fish or oysters for your dinner—anything, everything needed by humanity with a boutonniere thrown in for “lagniappe.” For who would leave a New Orleans market without lagniappe? It is a delightful custom, this getting something “thrown in,” and one which every true Lousianian expects as much

as he does his cigarette after dinner. When the marketer completes his purchases for the day there is always something given him—a rose, a bit of confection, perhaps a bunch of lettuce for a salad or some petit peppers for the table, but always lagniappe. To abolish this custom in New Orleans would mean almost a popular uprising. And so it is when one visits any of the great markets from Dryades, Poydras, Magazine, Tremé, or the far-famed French market, occupying a



THE MARGARET MONUMENT.

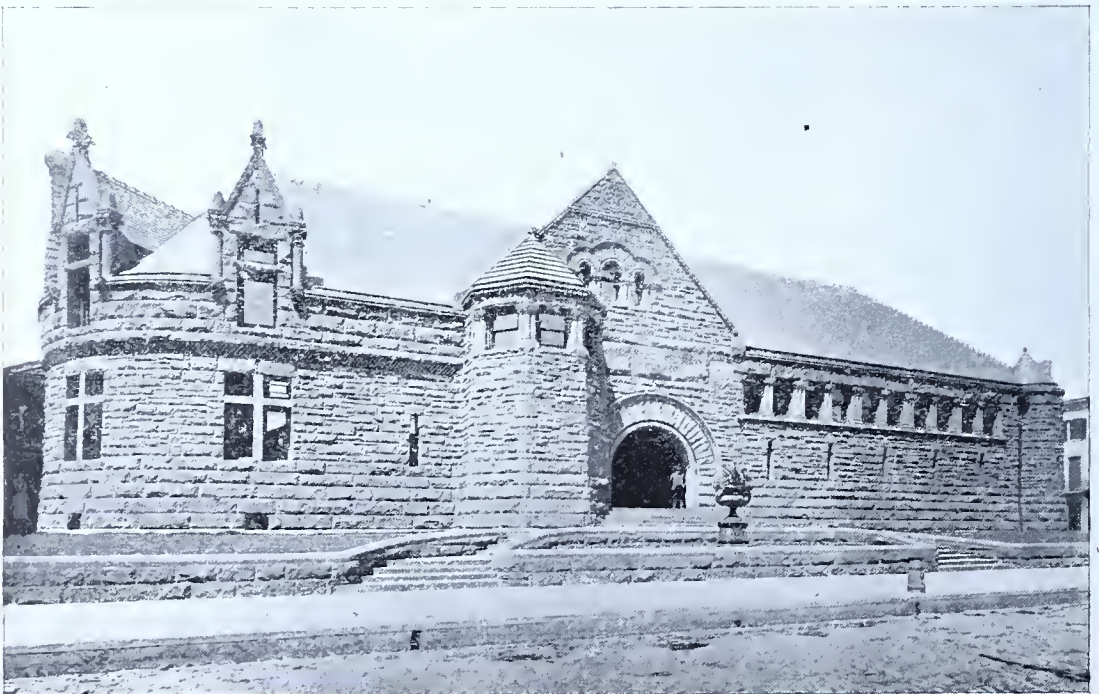
stretch of nearly three squares on the levee front, the purchases for the day are made, and lagniappe makes the heart happy.

To particularize these markets and picture all their every-day features and give them the flavor of romance they deserve is a difficult task. For years the French market has been a famous Sunday morning promenade for the French population of the city after early morning mass, and certainly no more

distinctive phrase of New Orleans life can be found then by taking a stroll through this market between nine and ten o'clock on Sunday morning. Whether you amuse yourself at the café stand, the meat stalls, the oyster counters, or among the fruits and flowers, the dry goods bazaars or the vegetable booths, you will see the Creole beauties of New Orleans on the premenade laughing, gay, happy, at ease with the world and themselves. And the well-filled market basket goes home with dainties for the Sunday dinner which only a Frenchman or a Louisianian knows how to purchase. The other markets, less celebrated yet as extensive and complete, do their full share of traffic, and by noon time all are deserted save a few booths which have specialties for sale. For the city has made its purchases and is now looking for amusement.

Perhaps it is not amiss to speak here of New Orleans amusements, and particularly Sunday recreation. The city is a powerful church community, both Protestant and Catholic, the latter being the predominant influence. Yet the community is essentially gay, and Sunday entertainments are exceedingly

popular with the masses. Among the churches, the St. Louis Cathedral, on Jackson Square, is one of the earliest, having been built in 1794. Its quaint Spanish architecture and its beautiful frescoes excite the admiration and curiosity of the stranger. Its founder was Spanish Don Almonaster, and to this day his memory is perpetuated by the weekly tolling of the great bell, whose mellow tones float across the square, over against the fruit and oyster luggers beyond the market on the levee, where swarthy Italians and devout Frenchmen cross themselves at the sound. And its great awkward towers and steeples stand out against the skies in grim array, while within, the soft lights of the tapers, the low music, the magnificence of the altar, the quiet of its galleries, the little confessional boxes, the absolute foreignness of its general appearance, are never-failing attractions to one who visits this historic building for the first time. Among the Protestant churches, there are the beautiful Christ Church on St. Charles avenue, Trinity Church on Jackson street, from which so many Southern bishops have emanated, and St. Paul's and St. John's, each distinctive in architecture.





BUTCHERS IN THE FRENCH MARKET.

Yet, in spite of the strength of its churches, the city's populace seek amusement on Sunday to an extraordinary degree, more so, in fact, than any community in America. The picnic, a strictly New Orleans Sunday institution, attracts perhaps more than anything else. These are usually made more alluring in being given under the name of charity. Then the base ball, the theatre, the French Opera Sunday matinee at noon, the river and railroad excursions, Spanish Fort and the West End at Lake Pontchartrain, dances and soirees at similar resorts, the beer gardens, bars, cafes and restaurants catering to those who remain in the city, make New Orleans stand out as a peculiar type of an American city, intensely, almost madly, bent on Sunday pleasures. But with the philosophy of the Latin church, and the broad-mindedness of both Protestant and Catholic, these Sunday recreations evoke no special rebukes from the clergy of either church, and have come to be a settled fact in the life of New Orleans people.

Difficult as it is to describe briefly the varying characteristics of a city

whose peculiarities are as strongly marked as those of New Orleans, there is nevertheless a never ending range of subjects and among them none more interesting than a study of the levees and life along them. Here may be found a sort of panorama that is always changing, never repeating and never tiresome. The great steamships bringing coffee from Mexico and South America; the tiny little Italian river luggers with their red sails and loaded to the guards with garden truck, the yellow orange or the Bayou Cook oyster; the down-east Yankee schooner, coming to this port for lumber; the great European "tramp" steamers entering this port for cotton and tobacco; the shriek of the tugs propelling other foreign vessels to the grain elevators; the enormous activity along the banana wharves, where Central American fruit is unloaded for Chicago and the Western cities; the consignments of the wealth of countries more tropical to the local dealers and buyers; the swish of the coal barges towed hither and thither; the fussy puff of the numerous ferry boats; the immense traffic in sugar and rice on the levee

front; the activity of the hundreds of river steamboats, once the palaces of American inland traffic and still the pride of every New Orleans heart; the unique independence of the levee roustabout; the "hustling" abilities of the Mississippi river steamboat mate, whose profanity is proverbial and whose power, alas, is now somewhat curtailed—these and a thousand other strange sights are daily pictured along the twenty odd miles of levee front before New Orleans, while the Mississippi river flows past the city, calmly, peacefully, grandly, bringing the products of 20,000 miles of river and river tributaries as well as opening the markets of the world to her. And behind all this, backed by a system of levees which no high water can invade, the City of New Orleans in all its

thetic, industrious and economical. While they are far behind the American in progressive ideas, they are, nevertheless, good citizens. In New Orleans the Creole is usually employed in some clerical capacity. It is rare to see them occupying positions of responsibility, but this is due more to their lack of inclination than to scant ability. For this reason they are, perhaps, unjustly criticized. They love a life of comparative ease, and an assured income, and as a rule, do not possess the restless American spirit of speculation and development. So it is that New Orleans, having a Creole population of about one-half, advances materially on the one side and stands still on the other. In the banks, insurance offices, corporations and large business firms, Creoles will be found



CONGO SQUARE.

picturesqueness throbs with the commerce which pays tribute to her as the Southern metropolis.

When the writer stops to think of the people who founded New Orleans and who for years were the blood and sinew of Louisiana, it is proper to say something about the French Creole population. This element represents a very large proportion of the citizens of Louisiana and of New Orleans. The Creoles, like all French people, are patriotic, sympa-

keeping the books, doing the correspondence, taking care of the details of the business, while the American population is developing and stretching out for fresh conquests. But the Creole is a hard worker, steadfast to his employer, proud of his traditions and on the whole a good element in the population. In progress he must give way to the American, because he will not assume the speculations and responsibility, and the fault is his own if he be criticized.

Socially, the Creoles are lavish entertainers. They love high living, and their home life is marked by the highest refinement and most charming manners. To this element is due largely the reputation which New Orleans possesses as

you a palm leaf fan, an omelette soufflée and a rose.'

"New Orleans is unlike any other American city; her very name is a souvenir of gayeties, her breath is as sweet as a willow copse in June, and



OLD HOUSES IN URSULINE STREET.

a city of hospitality, and on account of their peculiar and delightful methods, the city will always retain a flavor of Paris and the European capitals.

In a recent sketch of New Orleans, Catherine Cole of the *New Orleans Picayune*, gave the following charming description of the charms of the city, a brilliant word-picture which only a New Orleans writer knowing the charms of the city could present:

"It makes not the slightest difference what is one's first impression of this quaint and sunny old city lying half asleep, blinking as it were under her luminous skies, luxuriously lounging on the elbow of the great yellow river; in the end one is sure to conclude that when she speaks, when first her tender message is breathed into the ear, it is an invitation something like this: 'I offer

something about her always makes one think of the opera and the bal masque, the carnival, the palm leaf fan, the omelette soufflée and the rose. She is not to be known in a day, and she will unfold herself slowly, petal by petal, growing in charm each day as Venice does—surely not to be comprehended in an eye flash.

"The æsthetic attractions of New Orleans are inexhaustible. At the end of the week you like the place; at the end of ten days you pace her streets wearing her rose colors on the lapel of your coat, singing the music of her opera house—the music of Verdi and Gounod and Meyerbeer, and at the end of a month you will swear by her Spanish daggers, by the beautiful eyes of her women, by the rose upon your balcony.

"There are famous old restaurants with chefs who are shrined as saints in the memories of gourmets; there are the attractions of the markets, the picturesque stalls piled with pineapples and pompanoes, cauliflowers and calico, garlic and bandannas; there are luggers laden with golden oranges and bananas; there are ways electric lighted and paths where only the firefly winks in flame. In the public parks you may have a rose, in a market stall a cup of French coffee brewed on a charcoal brazier, in the opera house the music of "Rigoletto" or "Les Huguenots," in the church the chanted mass and perfume of incense, in the ball-room beautiful eyes and a pink domino, and everywhere the breath of the sweet olive, the soft breathing of the sweet, salt sea winds from the Mexican Gulf, and overhead the luminous, radiantly blue and tender sky.

"The electric light shows the way to the opera, the French market, the cathedral, but out of the thoroughfare is a tiny cafe where the coffee might be bottled and sold for perfume. At the fringe

of the town are convents that once were grand plantations, soon to be under the snows of sweet orange blossoms. The long, narrow, black tunnels of entrances to houses in Frenchtown give on open courts and pictures of most foreign-looking life. The song birds of the opera live here, the violet vendor has there her beds of purple bloom, and yonder the praline vendor concocts her rose leaf conserves or peels pecans for your after-dinner cup of café noir. A poet dwells in this big house, and across the way a ghost lives. A king once slept and snored in yonder haunted chamber.

"I look one way and see the salt-crusted funnel of an Indian steamer, or the red sail on the catboat of a Barataria oysterman; I look the other way and, pressed up by the dingy houses and the graveyard walls by the old basin, I see the charcoal schooners from the Mississippi bayous, their sails trailing like the broken wings of a gull. The air is warm and moist, it kisses the skin with a caress as tender as the touch of love,



A BIT OF OLD DAUPHINE STREET.

it is a whisper of the southland, and its breath is that of roses. A silver rod, old, faded golden rod, grown gray with age, self planted on the pent roof of Madame John's tumbling cottage, trembles in the wind, and at an early hour a plump market-woman goes clacking in her wooden sabots. A street-car bell tinkles and then the car comes to a halt and waits politely while a would-be passenger rushes back into her house for something she has forgotten.

"Up in the Garden district, where the big, Southern mansions are, their verandahs and columns and gateways trellised with jessamine vine, all is sunshine and flowers. One may wander down the quiet streets, the shade trees arching overhead as if this were some country lane in an English shire, and never weary of the view nor lose the impression that this is New Orleans, the king, the

queen, and all the royal family, of winter resorts.

"And so, with all her products and her commerce, her busy marts and her fine buildings, her opera and theatres, and her balls and routs, who desires that she shall offer you anything better than an omelette soufflée, a palm-leaf fan and a rose?

Beautiful, graceful as is this word-picture it cannot convey to the reader one-half of the delightful impressions that would rush in upon him during his first hour in New Orleans. Words fail under such a task and the utmost that can be told is but a suggestion of what can be seen. The sights that a stranger sees in New Orleans are never obliterated; its memories are sweet and fragrant, and the scenes that return to one's mental vision are full of beauty, grace and a charm that never lessens.



LOUISIANA'S ATTRACTIONS FOR IMMIGRANTS.

By M. B. Hillyard.

Louisiana presents almost peerless attractions to the immigrant. Her soil, climate and actual and possible products offer opportunities and inducements not yet fully explored, and almost incapable of enumeration. The Gulf of Mexico that laves her southern border teems with finny, crustacean and testaceous treasures, some of which have only lately been discovered and not yet exploited. There the oyster, shrimp (prawn) and diamond-back terrapin are found. To enumerate only a few choice fish—the Spanish mackerel, blue fish, red snapper, the pompano, there abound. In her rivers, streams and lakes, which are numerous, most of the fresh-water fish are found.

The forests and swamps of the State are full of timber, which in some respects has as yet received no attention from the manufacturer. Those woods which have awakened public attention have been an occasion of surprise by their beauty, durability, abundance, and the tardiness of their appreciation.

The merits of the coast climate are just beginning to commend themselves as a specific for neurotic complaints, and as curative or lenitive of rheumatism, asthma, catarrh, and bronchial or pulmonary troubles; while the climate of most of the State, though less pronounced in its salutary effects, is decidedly beneficial in these affections or diseases.

In agriculture and horticulture, and associated or cognate pursuits, active and almost exhaustive experimentation is constantly illustrating capabilities of soil and climate, to which it would be temerity to fix a limit. Thus, for illustration, it is only a very recent demonstration that the sugar-cane can be pro-

fitably raised in an area from which all former conception had eliminated it; that the tobacco, which has given such value and éclat to Western North Carolina, can be raised in equal quality, and with less expense, in the hills of North Louisiana; that the area of orange-raising is enlarged until its limit, for some of the hardier and more profitable varieties, has but a vague or hypothetical confine; that some of the choicest French grapes can be raised profitably and readily in the southern portions of the State, notably the Chasselas Doré, the Malaga, and the white muscat of Alexandria.

The reflecting and well-informed agriculturist and horticulturist will certainly agree that those demonstrations are startling triumphs of progress in their vocations. But it must not be omitted from mention that hops and buckwheat can be raised without difficulty, and the trucker will thank us for stating that celery, asparagus, horseradish and rhubarb or pie-plant may be added to a list of products that defies enumeration. The stock raiser and dairyman must not suppose that their opportunities are slender in Louisiana. Years before even Kentucky had attained anything like its present celebrity as the centre of the breeding of the thoroughbred race horse, Louisiana was noted in this regard. Her history in this respect has never been written. Her past and present record attest, besides, that the shorthorn, Jersey, Ayrshire, Holstein and Devon cattle can be successfully raised.

Of hogs almost every breed has been successfully raised, except the Chester White and Irish Grazer.

It is hardly necessary to say that the mule is easily and cheaply raised. Louis-

iana is an ideal State for sheep ; in much of her area their fecundity, general healthfulness, quality, evenness and fineness of wool are demonstrable.

Stock-raising in Louisiana owes its capabilities to her climate and soil. Her rainfall, or precipitation, both in summer and winter, and the mildness of her winters afford the easy possibility of perpetual verdure for pastures. Added to this are abundant dews. Then, her numberless brooks, never-failing, and pellucid in her hills, and the larger streams there and her numerous creeks and rivers elsewhere add features to stock-raising rarely found in conjunction with her climatological and physical features.

The grasses and forage plants of Louisiana, natural and acquired, are incredible and beyond enumeration. It is even doubtful if botany includes a complete list of her grasses. In her natural, or naturalized grasses, the State presents a variety in abundance for eight months' pasturage in the year, and rich in all resources of sustenance for stock. To enumerate them here is impossible, but there are the sedges (at least two species), Japan clover, Bermuda, carpet grass (two or more species). These grasses, not to mention others, are widely diffused, and anywhere afford eight months' pasture, and in parts of the State nearly or quite year-long pasture. White clover, too, is becoming quite common. For winter pasture switch-cane is abundant in most creek and river bottoms, and is the usual reliance of most stock-raisers.

But it is amply demonstrated that the grasses so popular in the country at large are most admirably adapted to the State generally. Among these are the various clovers—red, white, alfalfa, California or burr clover, Kentucky blue grass ("June" grass of the West), orchard grass, red top or herd grass, and very many others.

This latter list of grasses may be called the winter grasses by way of contradistinction to the summer and natural grasses, such as Bermuda, Japan clover, carpet grass, etc. Thus, by combining these two classes of grasses, the stock-raiser and dairyman can have

perpetual pasture in winter and summer. Thus the hay he has made can be turned into money and need not to be fed away to stock. Thus can be had butter, grass-flavored, the year round, worth at least twice what it is at the West and North. Thus his stock can be kept in superior health, because they do not incur the many complaints incident to shifting from green food to dry in winter and from dry to green in spring. Thus the wool of his sheep is of even fibre. Thus his fine beeves can be fat and ready for market for the West before they have become fit for shipment on pastures there. The poultry-raiser can here find a far more profitable field for his business than in the West or North. Fowls generally are far more prolific layers, healthier and of greater beauty of plumage here than there. New Orleans is a fine market for fowls, and many carloads are brought there from the West. The latter locality opens an opportunity here for raising spring chickens for the early Western market, as it does for early lambs, early fat beeves, early vegetables and fruits.

In what might be called specialism, Louisiana offers one of the most distinct fields for pursuits related to the soil of any State in this Union. A very large and most important class of her citizens are sugar planters. A much larger number are classed among cotton planters. Within a very short time, indeed, rice raising has become such a considerable industry, and so predominantly engrossing that its participants may be cast into the category of a class, and be termed rice planters. For several years a very considerable number of men have been engaged in trucking and gardening, raising early vegetables and melons for the New Orleans markets and those of the West. A few are largely engaged in orange-raising, but, as they are not distinctively so, and although the sum of their operation and that of numerous small producers is considerable, yet as few, if any, are orange raisers exclusively, or subordinate everything to it as an industry, they can hardly be thus classified. But it is probable that the day is not far distant when orange-raising will be a distinct vocation. Fruit-

raising of late may be said to be one of the distinct industries of the State, a result of the development of the last three or four year. Dairying is a distinct business and confined almost wholly to the locality of New Orleans, where men, with a few head of cattle each, furnish milk to that city. The business of supplying eggs to New Orleans is a material help to the small farmers of southwest Louisiana, its importance there, relative to the State at large, dignifying it sufficiently to be classed as above. Poultry-raising ought to overshadow it there, if economic considerations were given due weight, but does not.

The raising of Perique tobacco is principally confined to one parish—St. James. It is claimed to be the peculiar product of that soil. Whether this be conceded or not, it is thought that its production is necessarily confined to a very limited area: and that a peculiarity of soil, of very limited territory, holds the monopoly of its production.

We expect to find, in the course of the next few years, the cultivation of the bright yellow or golden tobacco to have become so absorbing and alluring in various northern parts of the State as to constitute there a distinct industry or vocation.

While there is to be found here and there a raiser of one and another species of live stock, yet stock-raising may be said to be a disregarded industry. The field is broad, open, virtually unoccupied. It is too expansive a theme for the occasion, and must be suffered to pass with the glances heretofore bestowed upon it in this article.

From what has been said, it is to be deducted that the immigrant may enter the field of specialism in raising sugar, rice, oranges, fruits, vegetables or stock, dairying, making cotton, making hay, raising tobacco, or he can pursue the round he was accustomed to at home. More and more will this State adapt itself to utilizing the products of his former style of agriculture in his Western home. Will he raise hogs? Then new Orleans will buy them, as she gets most of her live hogs from the West. Will he kill and cure them at home? Either New Orleans or the

country-merchant will take his bacon, because most of this meat comes from the West. Will he make hay? Either New Orleans will buy or some nearby purchaser will be found. Will he raise corn? He ought certainly to get a better price for it here than he got at home. Will he raise wheat? New Orleans will buy it; it is a new thing, but will develop. Will he raise oats? Either New Orleans or the local market will want them. Will he raise sheep? The Western market will take his early lambs, and at a fancy price. New Orleans or the local market will take his sheep. The country-merchant will eagerly buy his wool. Does his wife or daughter make good butter? He can certainly sell it for more here than at home.

He may be dazed at the discovery that the country merchant seems all for cotton, and if he gets disheartened he may raise it; and if he raises his own corn and pork, his vegetables and poultry, and makes his own butter he will do well at it. But the country merchant is shifty and adaptive. He has learned the true secret of his vocation—trade. He has learned that he must live by handling the products of the soil. He has grown up to adapting himself to his surroundings. In a country once all cotton-producing, the change has come to all fruit. The country merchant has come to buying fruit and shipping it. In a vegetable area the merchant sells his goods for potatoes and onions and barrels these and ships them. In a country that has become all rice-producing, the country merchant buys the farmer's rice.

We turn now to delineate, hurriedly, the areas that are given up, or we may rather say confined, to certain industries. There are three belts which admit approximately close delineation or demarkation. There is a territory beyond which demonstration of profitable production has not progressed. It would be rash to say that production is not possible beyond this limit. But qualifying circumstances must have play, and especially economic considerations. And with this definition or hint Louisiana is susceptible of divisions into her orange, sugar and rice belts.

We should hardly be willing to place New Orleans within the orange belt from the economic standpoint. That is to say, the tree is liable to great injury or death any winter, and it may pass several or many seasons unhurt, yet the growth of many years may perish. But the tree may soon be restored, hardly ever being killed outright. On the other hand, oranges are raised far west of New Orleans, and there are very handsome groves in Cameron and Calcasieu parishes. Perhaps it would be about right to say that the theoretical orange belt of Louisiana is on the latitude of thirty degrees from the east line to the west line of the State. In sheltered localities it might be moved nearly half a degree north of the latitude thirty degrees. Thus Lake Charles has many beautiful groves now. Many trees were killed there by the severe winter of 1885-86, which also killed many about New Orleans and far south. In Florida, on the south shores of Lake Arthur, in Vermillion parish, is another choice spot for oranges, and in some of the coves of the Queue de Tortue, in the same lovely parish, are spots where oranges are raised. On the Mermontau river, at the railroad station of that name, in a sheltered cove in Acadia parish, is another location where oranges promised well, but were killed in the winter of 1885-86. One may take his chances within the lines we have mentioned, and many years may elapse before the oranges will be killed or even badly injured by cold, but there is always the risk.

It is probable that the hardier oranges in the future may be demonstrated safe anywhere in the belt above given—that is, in latitude thirty degrees sixty minutes from the east to the west line of the State. The matter needs further elucidating by the statement that in numberless localities in the above area orange trees are found more or less thrifty, according to soil, treatment, etc., and of course liable to those cold snaps that may "kill back" the tree or kill it outright, and yet from which quite a series of winters may be exempt.

The sugar belt of Louisiana, in general terms, may be defined to be from the

mouth of Red river, south to the marsh bordering the Gulf of Mexico, and from the Mississippi river and its "country" west to the Vermillion. But the writer has seen superb cane in the pine hills in the eastern part of the State, and sugar cane is susceptible of profitable cultivation to the line of Arkansas, and some day most likely will be one of the most prominent crops in the northern part of the State.

The rice belt of the State is an entirely arbitrary area, based on the mere fact of culture, and dictated by no climatic consideration, and having for its most considerable, not to say determinate, cause or motive contiguity to water for irrigation. This for quite a time confined rice culture to the streams, and the area along the Mississippi and La Fourche rivers conspicuously were until very lately the chief seats of the industry. But within the last two or three years the very large body of immigrants, mainly farmers from the Western States, who have gone into the parishes of Calcasieu, Acadia and St. Landry, and very lately Vermillion, have devoted themselves mainly, almost wholly, to rice culture. Thus, a country which once raised only a little rice, and relied on rainfall exclusively, has in a short time been transformed into the great rice centre of the United States, and is the theatre of a more extensive system of irrigation than anything this side of the far Western States. There are many hundreds of miles of irrigation ditches, with constant additions, some notable canals, and many engines pumping water from the lakes and streams with which that area is blest. As Louisiana is full of streams for irrigation, and as there is no climatic bar, rice can be raised anywhere in Louisiana whenever need be. It should be stated, however, that a certain character of subsoil is necessary to rice-raising, so that the water put upon the rice may not percolate away. Of course, upland rice is a different species, and is raised or cultivated differently.

Because I have made this division of part of Louisiana's area into orange, sugar and rice belts, it is not to be supposed that that country is limited to

these products. It is rather done to avoid misconceptions as also to discriminate her agriculture from the country at large and by particularizing products, dignify an area thus signalized. But not to be misunderstood, it may be said that in all this territory allotted to these three productions, orange, sugar and rice, there is one of the most beautiful of climates, with much soil of almost unrivalled fertility, and that everything common to the State at large can be produced there, except, perhaps, winter apples in the orange belt.

The writer has often wondered why Sea Island cotton is not raised along the coast parishes. There is no adequate explanation. It has been successfully produced a little further east along the coast between Mobile and New Orleans.

Professor S. H. Lockett, in his topographical map of the State of Louisiana has made a division of the State which is a great help towards a comprehension of its soils. The first division is the "coast marsh," a strip of territory stretching along the whole south border of the State, nearly or quite 400 miles on the Gulf of Mexico. It is of greatly variant width and out of all present consideration for purposes of immigration, except in a very limited sense.

The next grand division is the "wooded swamp," which, except for its great resources of timber, may pass without consideration here. The next grand division is "alluvial lands," constituted mainly by the valleys of the Mississippi and Red rivers, an area perhaps the most fertile on the continent taken as a whole. On the Mississippi river this area is leveed, and the overflows are being progressively subdued, and the same may be said, in a large measure, of the Red river. The area is preeminently the cotton region of the State. The "alluvial lands" of the State have immense treasures in their forests of oak, ash, hickory, gums, poplar, etc. These resources are as yet but faintly touched, a narrow rim only, as a general thing, having been cleared and brought into cultivation. This area is destined to be one of the most populous, as it is the most fertile, areas in the State. It is mainly situated on the great river of

our continent, which is becoming more and more a great thoroughfare for commerce and weds the West to the outer world.

The next grand division is the "prairies," an almost compact body of land in the southwest portion of the State. This area is the centre of the great immigration from the West, a movement that has greatly commended the State to settlement, and that has thickly peopled, in much of its area, a section of the State but thinly populated a few years ago. Their experience in many regards, especially of health, prosperity and hospitable welcome, has been of invaluable service in paving the way for expanded immigration to the State at large. Several million acres of this prairie have been taken by capitalists and immigrants, and the latter are numerous along the railroads in Calcasieu and Acadia parishes, and will soon be in force in St. Landres, LaFayette and Vermillion parishes, where fertile land, a hearty welcome and a lovely climate await them. And the same may be said of the other two prairie parishes of St. Martin and Iberia, as well as a portion of St. Mary parish.

The next division of Prof. Lockett is an unimportant one—"pine flats"—and may be passed without comment. The next is the "bluff lands." In this area lie the west half of Livingston and much of East Baton Rouge and the greater portion of West Feliciana parishes. The soil is "yellow, loamy, very fertile," and "washes badly." It is a great country for vines and has some fine timber. There are other unimportant areas of this character of soil scattered here and there over the State.

Another very considerable body of land is the "pine hills." There are two great divisions of these lands—the smaller one in the southwest corner of the State; the other in the west-central and centre of the State. Here is the enormous pine-timber repository of the State, a source of incalculable wealth, and as yet little invaded. The soil generally is "thin, sandy, poor." The water is good, surface rolling and hilly. There are many clear streams abounding in fish. The little creek bottoms

are generally fertile. The soil is fine for fruits. In this character of soil is conducted the great fruit interest on the southern branch of the Illinois Central Railroad in the parish of Tangipahoa, in the eastern portion of the State. Here have sprung up considerable fruit and vegetable interests within the last few years. Many Western men have come in and founded new towns and enlarged old ones. They raise early fruits and vegetables for Western cities, and a large business has grown up. It has been amply demonstrated what a superb soil and climate these pine lands possess for peaches, pears, summer apples, strawberries, raspberries and grapes. It may be said in passing that the pine-hills area is an ideal one for sheep-raising. The wool clipped in part of the country has a distinctive appellation—"lake wool"—and is eagerly sought.

The next division of Professor Lockett is that of "good uplands." This is an area of the State that has received no consideration from Western immigration. Some immigrants have come in from some of the Southern States. But it has heretofore been out of the track of general railroad travel. It needs better openings to the West and will receive them. Two railroads give access now; one from Alexandria, north to St. Louis; another from Shreveport, north, called the "Cotton Belt" route. This "good uplands" belt stretches well across the Northern part of the State, from East to West; and this part of it is traversed by the Vicksburg, Shreveport & Pacific Railroad. Another section of this belt is situated in the north half of the extreme east side of the State. From near Robeline, in the western edge of Natchitoches parish, to Shreveport, in Caddo parish, this eastern area of the belt is pretty well opened up by the Texas & Pacific Railroad, one of the great trans-continental routes of the South giving direct communication with New Orleans on the south, and with San Francisco on the west. A narrow gauge railroad, between Shreveport, Louisiana, and Houston, Texas, penetrates southwest Caddo and northwest De Soto parishes.

The surface of this "good uplands" belt is variable in its topography, and ranges from gently rolling to hilly. The area is characterized by Professor Lockett thus: "Soil—sandy gray, or yellow loamy, or red ferruginous; subsoil—red clay; small bottoms—fertile; forest—oaks, hickory, ash, beech, maple, dogwood, gums and short leaf pine; water—good; products—cotton, corn, potatoes, small grain." Since that was written this section has been demonstrated to be a good fruit country. Besides the small fruits, peaches, pears and apples may be relied on, and even the cherry promises success. It offers great inducements to stock-raising and dairying. There are plentiful brooks and streams as a supply for water for stock. Kentucky blue grass, orchard, red top and the various clovers may be unhesitatingly sown in much of the area. It is a superb sheep country. In some of the parishes millions of acres can be purchased at very low prices, a good deal even at \$2.00 per acre. And although much of this is worn out land, it is easily susceptible of restoration by the cow-pea, a far superior resuscitator of reduced soils than red clover. Besides most of this land is virgin soil and fertile.

The area opens an ample and tempting field for immigration, and if capitalists would combine, purchase these lands and open them to Western farmers, it would rapidly enrich them and confer an immeasurable benefit on the State by introducing thousands of good men who would be sure of health, prosperity and happiness. It ought to be said for this good uplands belt that there are many superb forests of hard woods within its limits, and, although it is classified so as to give little or no intimation to that effect, there is much superb pine timber in this picturesque area so rich and abundant in opportunities for cheap and healthful homes. The immigrant will find Louisiana well supplied in the main with railroad facilities, and with those already constructed and those projected and promising early completion, few localities will be found remote from this great benefit. It must be remembered, too, that the numerous navigable streams of the State have

operated in the past as a deterrent to railroad construction. In much of the area of the State, steamboats ply past the very doors of the planters, and these make travel and transportation often very cheap.

In educational advantages, Louisiana ranks well. Male and female institutions for higher education are numerous and well distributed. Cheapness of building material is a matter of great importance to the immigrant. Hardly any State equals Louisiana in this respect and none surpasses her. The structural strength and durability, the ornamental beauty of her pine, as well as the lost merit in her cypress and other woods, are well known.

How does Louisiana rank in that most vital of all considerations—health? To answer this, I will quote from an address of Doctor C. P. Wilkinson, president of the New Orleans Board of Health, who draws from the census the following conclusions:

“Now as to the position which Louisiana occupies in the white list. I am very sure Vermont, Tennessee, Indiana and Texas have each of them enviable reputations for healthfulness, and a favorable comparison of Louisiana with any of the four would undoubtedly excite derision. What are the facts? Vermont has a white mortality of 15.12 per 1000; Tennessee, 15.21; Louisiana, 15.45; Indiana, 15.88; and Texas, 15.86; or, in this group of known healthy States, Louisiana stands superior to two and presents only a very small fractional inferiority to the others.

“Returning to official figures, and now excluding the large cities, we arrive at tables which meet our purpose—the relative salubrity of the rural portion of each State. The highest on record of percentage of deaths from malarial fever stands Florida, with 9.53 per cent. of its total mortality from this disease; the lowest Rhode Island, with only .08 per cent. In between these two extremes come the other States, those adjacent to our great streams showing a higher rate than the others. Arkansas has 7.65 per cent., Alabama 7.35, Mississippi 7.06, Louisiana 6.06, and Texas 6.04. Our own State showing more favorably than

any of our neighbors, save one, in a mortality springing from a disease largely preventable by ordinary attention, by the mass of the people, to the plainest and simplest laws of hygiene.

“The least infant mortality is exhibited in New Hampshire, which has 20.88 per cent. of infant to the total mortality; Maine 23.57, Vermont 24.10, California 25.31, New York 25.39, Connecticut 26.75, Massachusetts 29.21, Ohio 33.36, Rhode Island 33.69, Oregon 34.99, New Jersey 35.52, Wisconsin 35.61, Pennsylvania 36.15, and then Louisiana with 38.05, the list ending with Kansas and Nebraska, the highest rates in the Union—Kansas with 47.56 and Nebraska with 49.12 per cent. In this list Louisiana is not preceded by any Southern State. And should the calculation be based on the white population only or an equal per cent. of colored to whites which exists in each of the Northern States ahead of her, her rank would not be fifteenth, but third or fourth. The infant mortality among negroes is enormously large, as from their habits it must be. Substitute a comparison between whites in the rural sections of the Union, North and South, and many of our Southern States would show that our people cared well for their young.

“The percentage of deaths of people over ninety-five years to the total mortality, or, in other words, the proportion of old people in a State, demonstrating beyond cavil the possibilities and probabilities of life in those localities, is exhibited by the census as follows: Vermont stands first with a percentage of .70 of old people to total mortality and Louisiana second with .62, Florida sixth with .53, Rhode Island tenth with .45, Tennessee twentieth with .27 and Nebraska the very last with only .03 per cent.

“From the foregoing facts we may conclude with certainty: 1. That Louisiana enjoys relatively to her neighbors a favorable position in regard to mortality from malarial fevers, being superior to Arkansas, Alabama, Mississippi and Florida, and only a small fraction inferior to Texas.

2. “That her percentage of deaths of children places her above any of

the Southern States, and, if like population be compared with like, her position will be third or fourth among all the United States.

3. "That her position in reference to lowest rate of deaths from consumption, a disease very dependent upon climatic conditions, is fifth.

4. "That her percentage of deaths of old people places her second among all the States for possibilities of long life."

The climate of Louisiana must pass with the remark of the best authority, Capt. R. E. Kerkham, the signal corps director of New Orleans: "There are few, if any, States in the Union that possesses a milder or more genial climate than Louisiana."

It ought to be said that Louisiana offers exemption from taxation for ten years to capital invested in manufactories, and that her taxes in general are a mere bagatelle.

It seems worth while to attempt to summarize a little here as to the prodigious variety of products possible to this State: In cereals, wheat, oats, rye, barley, buckwheat, Indian corn (and numberless maizes), rice, sugarcane (a great many varieties) and many varieties of sorghum.

In fibres we can produce cotton, flax, ramie, jute, silk, and, it is believed, hemp.

In grasses the list is simply legion.

In vegetables we may say almost every variety.

In fruits the list is almost endless—
oranges, bananas, peaches, apricots,

almonds, nectarines, olives, apples, pears, quinces, grapes, blackberries, dewberries, raspberries, strawberries, pomegranates, figs, Japan persimmons, plums, mayhaw, sloe. To which we rather believe the cherry, gooseberry and currant will some day be added.

Nuts include in the list pecans, chestnuts, walnuts, (English and black), many varieties of the hickory, the hazel and chinquapin. And we had like to have forgotten tobacco, ginger, indigo and tea, and a numberless variety of the field-pea, hops and the navy bean.

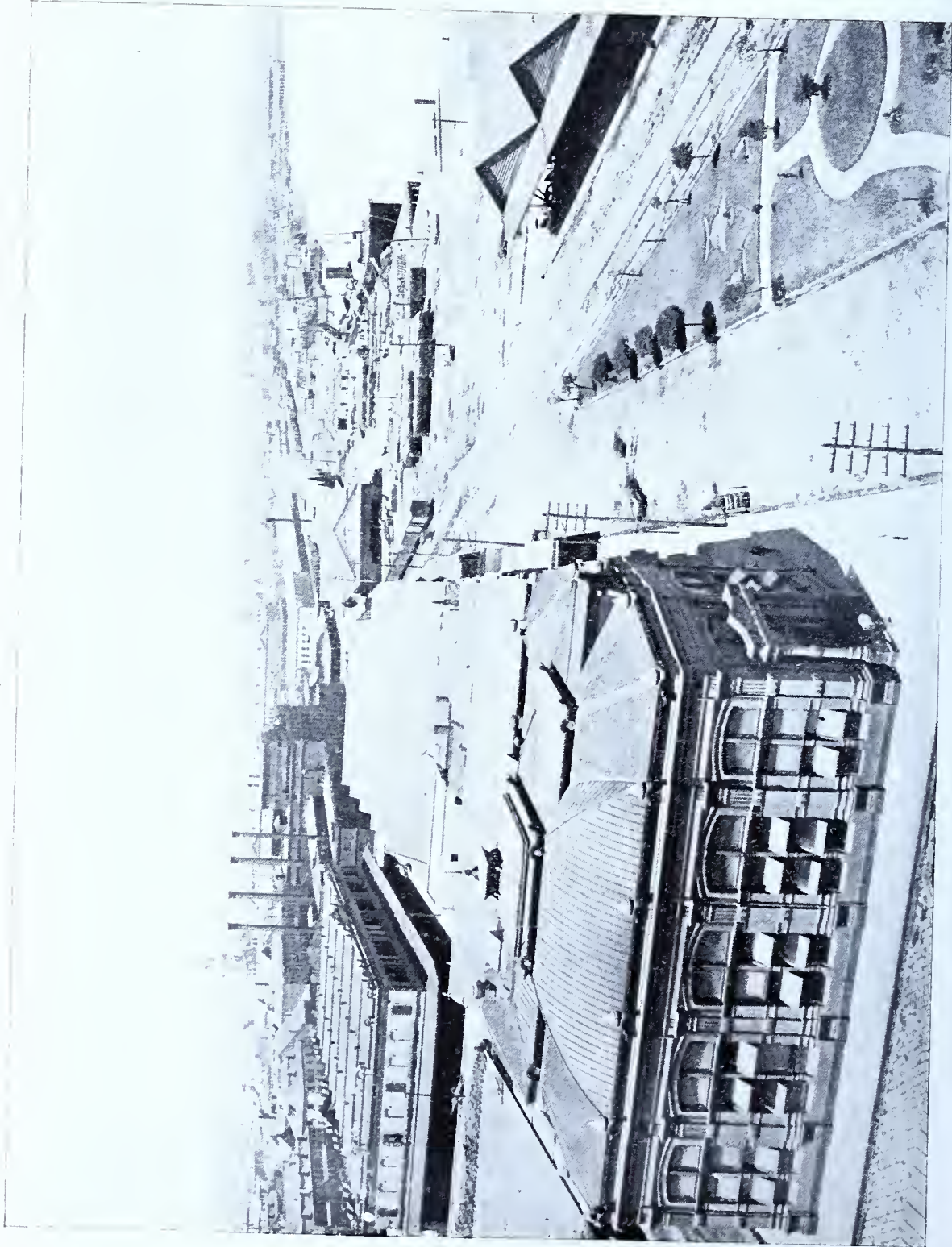
To the sportsman, Louisiana offers more varied attractions than any State in the Union. Everywhere, almost, quail, jack-snipe, wild duck, wild geese, brant, woodcock, are found in their season, and, except the first named, the coast-line teems with them. In the more thinly-settled areas, wild turkey and deer are plentiful. Everywhere the rabbit and squirrel are found, and the ubiquitous opossum and coon. And if the hunter wants danger he can find bear, wolves, wild cats and panthers.

The numberless bays, lakes, rivers and creeks offer pleasures in sailing and fishing which place the State above all rivalry.

The æsthetic side of Louisiana demands an abler pen. Her orange groves, her glorious skies, her never-failing flowers, the frolic blandness of her breezes, that "winnow fragrance and salubrity o'er her smiling landscape," are beyond the power of our hand to describe.



A PLANTATION SCENE IN THE LOUISIANA SUGAR BELT.



A VIEW OF THE WATER FRONT, NEW ORLEANS.
SUGAR EXCHANGE IN THE FOREGROUND; SUGAR REFINERY IN THE REAR.



JETTIES, LOOKING UP THE RIVER.

COMMERCE AND INDUSTRIES OF NEW ORLEANS.

By Major J. Henry Behan.

The advantages with which nature has endowed New Orleans have, in a measure, tended to retard, rather than promote her commercial prosperity. This chivalrous, intelligent and pleasure-loving people, inhabiting a land rich in climate and fruitful in resources, gathering in with gentle hands the riches which come to their doorway, might be compared to some great monarch awaiting the tributes of treasure and products demanded of the provinces conquered in warfare, unlike the civilian ruler who sends out his emissaries inviting the people of the territories to aid in developing the commercial and industrial opportunities offered.

Think of a city lying near the mouth of the greatest river in the world, the *entrepot* of this fertile valley, reaching from the Gulf of Mexico to the great lakes, extending its mighty arms from the Alleghanies to the Rocky Mountains, gathering in with Ravanna-like avidity all the treasure of that vast territory,

consisting of cotton, sugar, rice, grain, meat, coal, iron, precious metals, fruit and all the industrial handiwork of thousands of artisans, which, if loaded on barges, would float down this natural current of their own volition to the doors of the storehouses, and thence be distributed to the world. Without the power of steam or the new motor electricity, this favored city, with the benefits of water transportation enumerated, could keep her warehouses supplied and furnish cargoes to the numerous vessels always in the harbor.

The commerce of this city extends to every country on the globe. During the busy season, vessels from all ports, both coastwise and foreign, are lying at the wharves unloading their cargoes of merchandise to be immediately reloaded. The immense ocean steamers fill the lower portions of their hulls with from 30,000 to 40,000 bushels of grain, which is a regular export but is utilized as ballast, the between-decks being stowed

with cotton for England, the Continent and even Russia. The other principal articles of export are cottonseed oil and cake, staves and tobacco. At one time this city controlled the market for the latter article, but some years ago disastrous failures diverted the trade and she now only handles it in transit for reshipping, and even under these circumstances the improvement in tobacco is so great from passing through the Southern climate, that the Germans, who are its principal importers, much prefer that quality which has acquired superiority in being transferred over the Southern route.

A city situated near the outlet of a great river, with a harbor of safety large enough to float the navies of the world, will in time, with enterprise, proper management and care, control all the commerce of the countries, including the coffee output, of South America.

The trade in fruit products from the islands and Central American States, consisting principally of bananas, pine-apples and cocoanuts, which a few years ago required only two or three small schooners, has assumed proportions which now employ a fleet of about thirty first-class steamers. The Illinois Central, Louisville & Nashville and North Eastern Railroads have erected immense sheds and wharf accommodations for the exclusive use of this increasing and lucrative trade, from which, working day and night, are dispatched numerous fast trains of refrigerator cars, distributing these luscious fruits throughout the North, East and West, the latter territory being the principal recipient of the importations. Preparations are being made to establish a line of steamers with the Latin-American States which will control most of the commerce with those countries.

Not only is the Crescent City in the lead with tropical fruit, but it shares a large part of the Mediterranean trade, vying in this latter with New York. New Orleans claims to be a better winter market for receiving and distributing the consignments on account of the warm climate and the ample and complete arrangements the railroads have

for unloading, rehandling and sending the cargoes North and West. The receipts here this year show an increase over last year and equal 1891, which encourages the merchants in the belief that their business will be still further augmented in this direction, with the hope of ascendancy in the trade before much time shall elapse.

New Orleans is the natural outlet for the products of the Mississippi Valley, which furnishes Latin-America with the actual necessities of life, in exchange for agricultural, mineral and medicinal articles—namely, diamonds, silver, gold, coffee, mahogany, quinine, indigo, India-rubber and immense quantities of Demerara sugar and molasses for refining purposes, at this, their legitimate distributing point, a reciprocal trade which has unlimited scope and will be mutually beneficial.

A trade of much importance which is being largely developed is the extension of old saw mills with improved machinery and the erection of new and larger ones at advantageous points where felled timber can be floated to them during the seasons of high water, allowing the accumulation of a sufficient supply to keep them employed the entire year for the local as well as export trade to South America and England. These points develop into great magnitude the lumber and timber trade of the vast forests contiguous to this city from which it derives the principal benefit.

The Mechanics', Dealers' and Lumbermen's Exchange, an association formed for the better interchange of ideas in regard to building materials, has become a commercial necessity of consequence, affording ample protection to all parties using or furnishing articles for building purposes. To substantiate the general benefit derived, we quote the official record for the year ending June 31st, 1893, which "shows a total of 1192 buildings erected in New Orleans against 570 during the same period of 1891-92; 763 rebuilt, added to or repaired as against 873, with building permits calling for the expenditure of \$2,940,473 as against \$1,831,867. Making the usual allowance of one-third extra for the actual expenditure over the permit esti-



UNLOADING BANANAS ON THE LEVEE, NEW ORLEANS.

mates, the total amount spent on buildings during the year was \$3,920,631 as compared with \$2,422,489 in 1891-92, an increase of sixty-one per cent. There is an improvement in every line, 1161 residences having been built as compared with 551, while the number of stores erected increased nearly threefold.

This record is the best New Orleans has ever made. With due allowance for the loss by fire, decay, etc., it means an addition to the taxable wealth of the city in new buildings alone of \$3,400,000 and an increase of 6200 in population. In a year of some general depression this is a good showing, as good relatively as any city in the country can make. And as real estate, when not artificially boomed, is the best test of prosperity, we may consider these statistics of New Orleans as bearing evidence to a solid, substantial and promising condition of affairs.

Much of this is due to the well organized and solid local building and homestead associations which have been instrumental in furnishing homes to a large number of the population unable to build or purchase property unless upon the instalment plan, the rule of these associations. This interest has become of such importance as

to warrant the formation of a State Homestead League, which, now in its third year, has served to promote the financial status of the associations, whereby the confidence of the community has been obtained to the fullest extent.

Besides the commercial traffic extending all over the world as heretofore enumerated, there is considerable trade on the lakes and Mississippi Sound in charcoal, wood, sand, shells, tar, rosin, pitch, cresote, turpentine and other products of the pine forests, including large numbers of bricks for building and paving in this and the adjoining cities, and also for shipment to the interior. Realizing the inadequate quantity of this latter material, an enterprising firm has erected a mammoth brick factory within two hours' travel of the city by rail and water. The clay used in that vicinity is unsurpassed; work is pushing forward and the supply will hereafter be fully equal to the demand.

Near this deposit of clay for brick making is also another quality peculiarly adapted to manufacturing plain and decorative pottery and porcelain. The capital was furnished and a factory established near here, but for the want

of patronage they have temporarily suspended work with a large amount of material on hand, and hopes are entertained that at an early date work will be resumed.

A casual observation has been made in regard to cotton and grain as cargoes for the immense ocean steamers that enter our harbor during the year. It is necessary to impress upon the shippers of the West the growing importance of New Orleans as a grain exporting point. The Trans-Mississippi Congress, sessions of which were held in Denver, Kansas City, Omaha and New Orleans, has been of more vital consequence to this city than one would imagine at the first glance. The delegations from the West, particularly from Kansas City, upon their visits to New Orleans, saw and realized with their usual shrewd business acumen, the advantages of this port as an outlet for their grain and meat products. The large increase in the export of grain shows what energy and push will accomplish by making use of the favorable situation of this city. Grain transported by railroads is delivered at the ships' side and is transferred by the elevators at very small expense. That transported by the river in barges is landed alongside the ships and transferred by floating elevators at a nominal cost, making this the cheapest port for the export of grain, as it does not require rehandling. So well satisfied are the exporters of grain as to the cheapness and safety of the route via New Orleans from partial cargoes, they have in the last few years been making solid shipments by the largest of ocean steamers, which arrive at their destination and deliver the cargoes in Europe in as good condition as they were at the point of shipment.

In the year ending August 31st, 1891, the exports of grain from this port were: Corn, 2,108,919 bushels, and wheat, 3,244,459, a total of 5,353,378 bushels. For the year ending August 31st, 1892, they were: Corn, 6,192,006 bushels, and wheat, 13,055,682 bushels, a total of 19,247,688 bushels, showing an increase of 13,894,310 bushels. The exportation of grain for the ten months ending June 30th, 1893, equals the

entire amount of last year, with a large stock on hand awaiting freight room.

We take pleasure in quoting the following pertinent remarks of Mr. A. J. Vanlandingham, commissioner of the Transportation Bureau in Kansas City:

"New Orleans possesses unrivalled natural advantages for trade; the Mississippi river and its tributaries afford not less than 15,000 miles of navigable waters communicating with a vast extent of country illimitable in its resources, exhaustless in fertility, and embracing nearly every variety of climate. Vessels drawing twenty-five to twenty-six feet of water can readily pass through the jetties, and have done so with the tide one foot below the average flood. New Orleans so far is the only Southern port that has proven its ability to handle grain at a profit to the shippers and the carriers, and it is to be hoped that the elevator capacity at New Orleans will be largely increased at an early date."

These words are an evidence of the superior advantages perceived by a shrewd and practical business man without prejudice or bias in favor of this port over any other. His wide experience as a railroad man makes this opinion of unquestionable value.

The increasing receipts of grain caused a demand for more elevator facilities, which was promptly met by the Mississippi Valley road, now part of the Illinois Central system, and the Texas Pacific Railway, the former increasing the capacity of the one at Southport, the latter erecting one at Westwego, which now makes five stationary elevators of 1,000,000 bushels capacity, besides the floating ones in the river. Numerous enterprises are on foot to increase the elevator and warehouse capacity in order to meet the growing demand for increased facilities to accommodate the anticipated larger shipments from the West and Texas. With plenty of water all the year from Kansas City; with the railway facilities for moving large quantities after the cotton crop is marketed; with the extension of the Missouri, Kansas & Texas Railway from Jefferson, Texas, to this city, and the Missouri Pacific from Alexandria, La., creating competition and

giving two direct routes through the grain producing country ; in a few years New Orleans will rank first in the grain exporting trade of this continent.

There is no danger of a blockade on the railroad, or an embargo on the river between here and Kansas City. The former can be relieved by the river, and if the water is low the cargoes of the barges can be reduced, the railways readily handling sufficient to supply the fleet of steamers awaiting shipments. It is surprising to note with what expedition vessels are unloaded and reloaded at this port : those arriving in ballast are ready to depart with a full cargo of grain and cotton or entirely distinct loads of either in a few days. We again repeat that nothing short of an earthquake can prevent New Orleans from becoming within the next five years the largest exporting city of the country.

With these unequalled facilities for receiving and handling the wheat of different grades, direct from the producing points at all seasons, it is a matter of extreme moment as well as surprise, to note the absence of flour mills. Here is a magnificent opportunity open to some enterprising man or company with sufficient capital to erect a mill or mills of large capacity on or near the river. Such a venture would undoubtedly be crowned with success from its advent.

The wholesale grocers carry large stocks, varying from one to two thousand barrels of flour, which during the wet season is subject to damage from climatic effects. The grain itself in elevators, with their improved bins which prevent it from heating, is a wealth of material conveniently at hand, and flour could be furnished fresh daily for local consumption as well as for shipment to Central and South America. Certain grades only are suited to these countries, owing to the effect produced by a long voyage and the change of temperature. The flour thus manufactured would necessarily be fresher and of a quality better adapted to the trade, being selected for those special orders. The raw material being transported in bulk at a lesser rate than the manufactured material in barrels, the difference in freight alone is

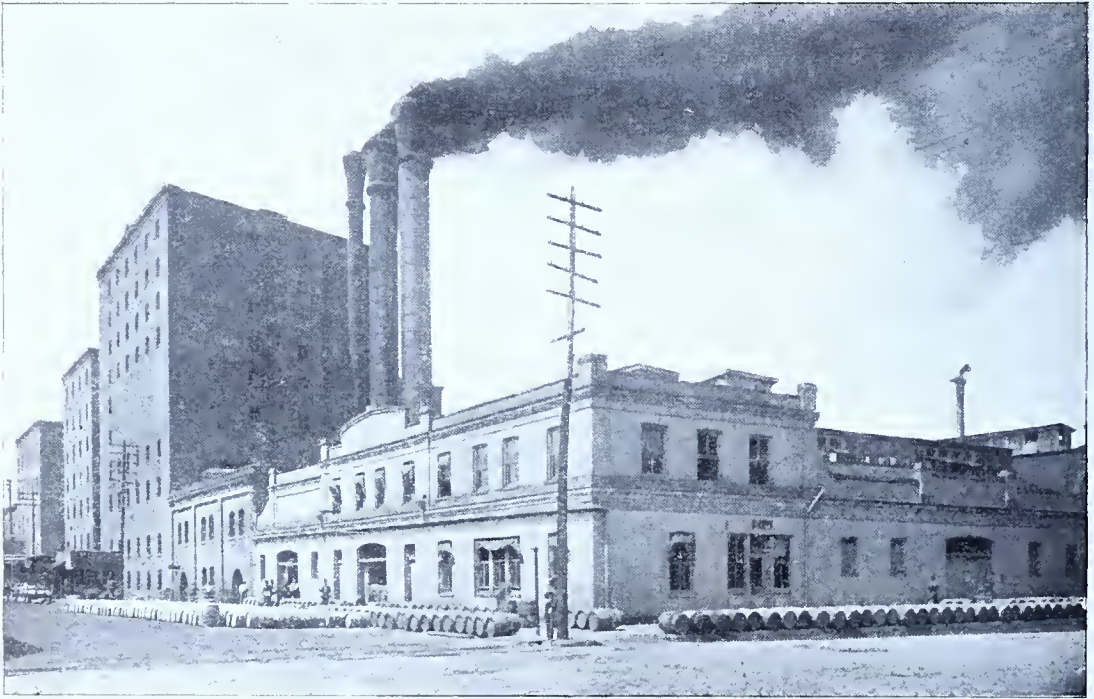
enough to make it remunerative without further consideration.

The attention of millers and capitalists is called to this opportunity with the hope that it may lead to the early inauguration of this industry which assures success and profit. The question admits of close investigation without fear of the result.

It may not be within the purview of this writing to allude to the possibilities of a city so favored, but as the enterprise in question is an attribute of one of the principal and leading articles of its commerce, the utilizing of raw material at hand to manufacture a commodity necessary to all mankind, it is but the natural sequence of the situation attracting the attention of the casual observer, who says : "Here is the wheat, where are your flour mills?"

The industries of New Orleans are varied and numerous, a genial and salubrious climate allowing the manufacturing to run in all seasons, so that the entire year is occupied by the busy hum of spindles, sewing machines, circular saws and other machinery in motion shaping material for use in the factories and for building. There are ten large saw and planing mills, several of them making sash, blinds, doors, molding and all necessary woodwork for completing and decorating the modern style dwellings. There are fourteen lumber companies in the city who are receivers, dealers and shippers of lumber ; some of them controlling large mills in the immediate neighborhood, are able to execute orders for local trade and export with immediate and prompt attention. One firm, to accommodate the immense growing demands, constructed a railroad over fifty miles in length to facilitate the transportation of large timber to market or to tidewater for shipment. They are also owners of a mill on Pearl river, which has a capacity of 100,000 feet of sawed timber per day.

In addition to the pines which flourish in such exuberance on the uplands, down in the valley of the stream, or what is called "bottom land," we find an equally luxuriant growth of different woods susceptible of the highest polish, viz: the beech, gum, dogwood, ash,



SUGAR REFINERY, NEW ORLEANS.

wild cherry, white oak, red oak, pin oak, the majestic live oak, magnolia, white pine, hickory, cypress and others. Many of them are used in manufactories for furniture, office fitting and railway cars. An ample supply of well-seasoned lumber has placed the trunk and box making industry in the front rank with other cities and has secured immediate recognition. Packing cases and shooks of a smaller class (boxes for soaps and patent medicines) occupy much of the time of these factories, where also a number of women and girls are employed in making varieties of paper covered boxes. The goods made in the trunk factories are largely distributed throughout various States, and give entire satisfaction because of reasonable prices. The possibilities of development in store for all interests connected with timber is beyond prophecy.

There are located in New Orleans thirteen rice mills of large capacity receiving the rough material direct from the fields and preparing it for market. This is an article of our commerce which a few years ago belonged entirely to the Atlantic States, principally the Carolinas. At present this city receives and mills over a million sacks per year. New Orleans

enjoys supremacy in the rice trade from the fact that the entire Louisiana crop is handled here. The yield is twice that of all the other States together, so this city may with justice be denominated the great market for domestic rice. The large amounts handled in New York are entirely of foreign growth. The development of this industry continues to increase yearly.

The swamps contiguous to New Orleans furnish moss in superabundance which keeps eight factories and numerous hands occupied in preparing it for mattress making, also for upholstering furniture. The many people engaged in gathering it from the trees, together with those employed in the factories, make quite an addition to the army of toilers whose labor tends towards the prosperity of a community. In connection with this subject should be mentioned four large mattress factories employing many expert hands in making these goods for local trade and for shipment. No inconsiderable quantity of this moss is shipped in its rough state, but most of it is rehandled by the city moss gins. This trade is also tending upward.

There are twelve foundries and

machine shops where the principal work for the sugar plantation and refineries, steamboats and steamships is done. They employ a great number of experienced mechanics, as well as many apprentices. The work done by the three leading concerns compares favorably with the best shops of the North, especially in sugar-house appliances, which require fine finish and precision. Separate from the foundries are a number of boiler-makers, and the constant din of the hammers heard far and wide gives the indolent sightseer an excellent idea of pandemonium.

New Orleans has always been the market for the two great crops of the South, sugar and cotton, but not until the past few years has any interest been displayed in either beyond the regular routine business of the commission merchant of receiving and selling, leaving the buyer to arrange his shipments without giving a thought to the fact that in a few weeks he would be purchasing possibly the raw materials in a manufactured state. This city has several immense sugar refineries, employing hundreds of hands, and two large cotton mills, with the whirl of spindles and clatter of looms, new to the people but demonstrating more forcibly than a thousand pages of description the manufacturing possibilities there are in store for this place. The following statistics will give an idea of the output of one of the largest of our cotton mills: about 36,000 spindles and 1100 looms are in use; employment is given to about 900 operatives, who work up about forty bales of cotton daily, which is converted into various kinds of cotton cloth and hosiery yarns. Their production for the six months ending July 1, 1893, was about 1,968,424 pounds of yarn and cloth, the amount of cloth produced being about 7,873,000 yards. The amount of wages paid to work-people during this period was about \$85,000.

Beside the promotion of manufacturing industries there is a humane consideration of much moment involved in the employment of women and girls, enabling them to earn an honest and comfortable living. In the manufacture of cigars and tobacco New Orleans now

stands paramount. Fifty factories with a multitude of deft-handed workmen and women turn out a fine grade of work, which is gaining an extensive reputation. Ten years ago not a woman or girl could obtain employment as a cigar-maker, but at the present time they are favored over the other sex. One firm alone has 700 women and girl employees, and they are considered peculiarly fitted for this vocation. With skilled labor and a perfect climate there is no reason why this city should not become one of the leading cigar centres in the world.

As we proceed, each new subject seems to grow in importance and claims to be a principal factor in promoting industrial wealth and prosperity. We find the clothing manufactories second to none in the value of their output. Orders are increasing year by year, as a large proportion of the clothing manufactured here can be made 25 per cent. cheaper than in New York. The chief branch of this industry continues to be the manufacture of jeans, which, on account of their reasonable price and durability, are satisfactory to the working people. No country store is considered complete without its large consignment of New Orleans made clothing in stock, and Mexico, too, is proving a profitable field for this industry, taxing to the utmost the factories, large as they are, for a sufficient supply.

Three knitting mills manufacture excellent hosiery, and although only recently established, have been very successful and are fast growing into favor. Orders for their goods are far in advance of the supply for local trade and shipment to Texas and Mexico. There is a bright future ahead for this young industry, as it possesses every element of success—capital, abundance of material, and cheap labor especially adapted to this class of work. The boot and shoe factories are improving their lines, both in material and style; business has advanced this year to the full satisfaction of those engaged in this line. The New Orleans trade is equally distributed in most of the Southern States with a steady increase towards those of Central America.

A small industry of local importance

has unexpectedly made a rapid stride into favor, and four factories are now engaged in putting up for table use what is known as "Creole Mustard," a piquant seasoning for salads and meats. It is sent out in jars, ready for use without further preparation.

A few years ago we had to depend on Pennsylvania for our coal supply. It was transported in flatboats down the Mississippi and Ohio rivers from the mines near Pittsburg, often at a great risk from storms and other perils of the water. Since the opening of the new lines of railway in Alabama, coal from the mines of that State has become part of our commerce, and in such magnitude as scarcely to be believed unless one were standing at the North Eastern railroad depot counting the trains of ten and twelve cars each, "belted" to the Southern Pacific railway en route to Texas and Mexico. At first this trade was carried on via the river and Gulf to Galveston, but since the North Eastern changed its track to the standard gauge the shipments have been transferred direct without breaking bulk, which has increased the amount this year to nearly double the trade of last year.

Not many years have elapsed since the entire ice supply of this city came from the East in Maine-built ships, which were loaded at Boston and the cargo stored away on its arrival in buildings erected especially for this purpose. Later, the Western ice was added, some received in barge loads via the river and some by rail, all of which trade has lapsed into decadence, succumbing to manufactories now producing enough for home use and also supplying the summer resorts on the lakes and Mississippi sound, as well as many points in the interior. There are eight factories, two of them using water from driven wells, others the river water, boiled and filtered. There was some prejudice at first against using the manufactured ice, but that has passed away, and no questions are asked except by dealers, who naturally prefer to patronize the company in which they are interested as stockholders.

The dry docks, ship and steamboat repair shops, located in the fifth district,

(what was formerly known as Algiers), do a thriving business the entire year and turn out work which compares favorably with the larger establishments in the East.

Within the past twelve years another enterprise, without attracting much attention, has grown to such importance that the brewers of the North and West, and even Europe, have observed the inroads made upon their once profitable trade by the New Orleans breweries. Formerly this city ordered its beer from the West and imported ale from England. While some yet is received from these sources, the amount is small in comparison with the past. The home consumption has not only increased but large shipments are being made to Mexico, Central and South America, showing how wide a reputation this incomparably fine malt liquor is gaining.

Cooperage is another industry which has extended its business considerably, until during this year a fire occurred which entirely destroyed the largest establishment and valuable property in the vicinity. This caused much discussion in insurance circles and attracted the attention of the city government, thereby delaying the permit to rebuild. This cooperage being a very extensive one the output has been much reduced in comparison with last year. While there have always been many small concerns owned by individuals who supply sugar planters with barrels and hogsheads by contract, not until recently were there any organized corporations, entering upon this industry on a large scale with all the modern appliances now necessary. There are, however, evidences of a renewal of the trade which is encouraging.

There are many smaller industries, common to all large cities which help to swell its trade and give employment to a number of workmen, from the skilled artisan to the ordinary day laborer. Passing over these we enter upon one of the principal factors which can promote or destroy a city's prosperity—the transportation companies. Six railroads have their terminals here: the Southern Pacific (Morgan line), Illinois Central, Louisville, New Orleans & Texas (now

a part of the Illinois Central system), Louisville & Nashville, Texas & Pacific, New Orleans & North Eastern, which is the Southern division of the Queen & Crescent Route. The city has been at all times very liberal in granting privileges and facilities to these corporations, expecting an ample return by the increased trade relations with the territory through which their lines pass, but we are sorry to say in many instances this anticipation has not been realized nor the promises fulfilled. This question has been so often and thoroughly ventilated by the Board of Trade and Cotton Exchange, we will leave it in their hands or more properly in the hands of the Bureau of Freight and Transportation recently organized and incorporated by a regular delegation from all the exchanges. This association of business men was formed for the purposes enu-

merated in their published address, and surely an interchange of trade interests and mutual indulgences will result in a harmonious and equitable adjustment of the discrimination in rates against this city.

Another matter for serious consideration is the insufficient banking interest of New Orleans. During the season prior to the movement of cotton, sugar, etc., there is a great dearth of money for circulation which has a general depressing effect while it lasts. Though the stated amount of capital seems tremendous, it is only a part of the money that can be used to advantage here. The institution of larger banking interests opens another broad path for enterprising and energetic capitalists, and will lead further on to the golden future which looms ahead for old New Orleans.



SEA WALL AT THE JETTIES

THE LUMBER INTERESTS OF LOUISIANA.

By Watson Jones.

The recent meeting of the "Forestry Congress" at the World's Fair in Chicago has brought into startling clearness the facts concerning the rapid denudation of our lands to satisfy the commercial demands for timber and lumber. A few years since the lumberman's call was "from Maine to Georgia" now it is from "Minnesota to Louisiana."

The remarkable adaptation of the alluvial bottom lands of the Mississippi and Red rivers running through the Pelican State to the production of the cane has for more than a half a century centered the business minds upon "sugar" as the dominant industry of the State. Thus until recent years its vast forest resources were slightly trenched upon. But of late the quick commercial instinct has discovered that Louisiana has within its bounds more than 50,000,000,000 feet of the best timber known. The capitalists, manufacturers and home seekers are finding out this fact, and eager inquiries are coming from all parts of the country as to the best location for investment or settlement.

Fortunately the ownership of these lands is in many hands, so that the monopolistic feature of large holdings is avoided. The conservative spirit of the old regime is dissipating with the advance of new era and "New South" ideas, and now quick response is given to earnest questions, and hearty welcome awaits any who bring money or self to aid in the development of the State.

An important fact affecting the lumber interests of Louisiana is that the character of her woods is of just the nature to satisfy the demands of taste and

culture for decorative effect as well as strength. The cypress, the gums, the magnolia and the holly command prices that would have seemed preposterous a few years ago. True, many cargoes and thousands of carloads of yellow pine and oak have been taken, and thousands more will follow at increasing prices, but the quantities and values of the special varieties of the woods of Louisiana are realized by none and thought of by few.

It has been discovered that Louisiana is the cypress State, that while the wood is distributed through a wide extent of the Southern belt, the Gulf or red cypress of Louisiana is unequalled by that of any other section, so that already more than \$1,500,000 is invested in the cypress branch of the lumbering industry alone. Large manufacturing establishments in New Orleans and other business centres of the State are this year consuming 9,000,000 feet of cypress to meet the demand for sash, doors, blinds and interior finish of this wood, so remarkable for its beauty and durability.

While it was not the intention of this article to be specific or statistical, a few words as to the location of certain of the principal woods of the State may be appreciated.

The long-leaf pine is found more or less over the hill country of the State, yet it may be said to have two important centres, the eastern and western. The former embraces the parishes of North St. Tammany, Washington, North Tangipahoa, most of St. Helena and East Feliciana. There is a considerable area of pine flats in North St. Tammany, South and West Tangipahoa and East Livingston parishes, and a narrow

rim in Southeast St. Helena parish and in Calcasieu. The western centre of the pine is situated in Northwest Catahoula, West Caldwell, Southeast Jackson, all of Winn, nearly all of Grant, except the narrow rim in the Red river valley in the southwest portion of the parish, Northwest and all West Rapides, a small area in Northeast St. Landry, all North Calcasieu, South and West Natchitoches and Southwest Sabine. Alexandria is near the geographical centre of

belt has been untouched. The Southern Pacific Railroad opened up Calcasieu parish mainly at Lake Charles and country contributing. The daily cut there now is about 300,000 feet. Later, the Texas & Pacific Railroad developed the lumber business along its line, but the mills, though of fine character and large cut, have barely made an impress upon the territory.

The Kansas City, Watkins & Gulf railroad now complete from Lake Charles to Alexandria will afford an outlet for the pine of North West St. Landry and South Rapides parishes, and if continued to its avowed terminus at Kansas City, is destined to develop great pine lumber interests in the parishes of Grant and Winn, which it will necessarily traverse.

The Houston, Central Arkansas & Northern Railroad, now running from Alexandria to Monroe, La., gives a very direct outlet to the West for the pine of Grant parish from north to south of its eastern area, of Southeast Winn, East Catahoula, Southeast Caldwell and Northeast Rapides parishes. This railroad opens up an extensive area of pine and is a most important factor in the development of the lumber interest of the State. In some parts of the pine belt the "cut" is very large, sometimes as high as 30,000 feet per acre, and not uncommonly 10,000. Sometimes many acres can be found where this last figure is exceeded. Few, if any, of these pine lands are now in first hands. Prices range according to cut and accessibility. They are about as follows: Lands cutting 3000 to 4000 feet per acre, distant from railroad, \$1.00 to \$1.50 per acre; for lands distant from railroad, cutting from 6000 to 10,000 feet, \$3.00 to \$5.00 per acre; lands near to railroad, \$1.00 to \$1.50 per acre for stumpage; lands away from railroad cutting 15,000 feet are



BLEEDING PINE TREES FOR TURPENTINE.

the State, and within a radius of seventy-five miles of this important railroad centre is situated the bulk of the great pine area of the State.

Until recently this great Western pine



A LOUISIANA TURPENTINE STILL.

estimated to be worth \$10.00 per acre.

The bulk of red cypress is situated south of the Red river and west of the Mississippi to the Sabine. The white cypress is a more generally diffused wood and is even found as far north as Delaware. In Louisiana it is to be found in all localities adapted to its growth. The sweet gum has no particular locality. It is a considerable feature in most forests; is rather plentiful in the Mississippi bottom and the river parishes.

The tupelo gum is abundant in many wet bottoms of the State. The holly is everywhere as a scattering tree; the magnolia, though not rare as to a few specimens, is rare as to its quantity in any given locality. Both these woods have a great future value. The ash, hickory and various oak are common to the State. The live oak is found on the Southern or Gulf coast, on the Chenieres and Buck ridges and bayous and along the banks of the streams in many, if not all, the alluvial regions of the State.

No mention has been made of the ash which is scattered throughout many of the upper parishes of the State, also the maple, and in a few localities the black walnut. The pecan is quite common in small bodies throughout the State, and is commonly preserved for the greatly increasing value of the "thin-shelled Louisiana pecan nut." Great numbers are being planted, and the young trees grafted with the most per-

fect samples form a profitable industry. Poplar and cotton wood are also quite generally distributed in the upper parishes near the river, the hackberry, dogwood and sycamore likewise. In some localities the sassafras grows so abundantly as to deserve mention.

As to facilities for transporting and marketing the lumber, the primitive methods of river rafting and transportation are being rapidly supplanted by the railroads and every modern appliance. The Pearl river on the east and the Sabine on the west still serve as outlets for the principal exportation for foreign or coastwise business. The Jackson, or Illinois Central Railroad, is the oldest and still most faithful servant of the mills. The Great Eastern, or Queen & Crescent route, does some business for East Louisiana, but finds its great work in Mississippi. The Louisville & Nashville Railroad has very few mills, but is useful for its connections, while it has a small local trade. The Southern Pacific furnishes ready distribution of the cypress of the South and the yellow pine of the Southwest.

Two branches of the Southern Pacific from Schriever to Thibodeaux and Schriever to Houma are built. One is projected from Raceland to Lafourche and several others in the western part of the State, which will open up valuable timber sections.

The Texas & Pacific Railroad is most important for the Red river sections of

the State. The "Vidalia Route" takes in the northern and uplands from the eastern border to Shreveport, which is a centre for all hard wood operations. The same may be said of the road from Delta, opposite Vicksburg to Shreveport. There is a narrow guage road from Shreveport running through De Soto and Caddo parishes, crossing the Sabine river at Logansport, which will eventually be made wide gauge and

extended into Texas. It opens a vast pine district.

Thus, in extent, in variety, in favor, as to locations and facilities of transportation, the lumber interests of Louisiana merit the attention of the wealthy capitalist, the competent, energetic manufacturer, and above all, the man of family who seeks to make a home where opportunity to "grow up with the country" makes a small investment in the present sure capital for the future.



THE LOUISIANA OYSTER BEDS.

By F. C. Zacharie.

The great resources of Louisiana in its large production of sugar-cane, cotton, rice, lumber and fruits have hitherto kept in comparative obscurity what are generally deemed the minor—and wrongly considered the less remunerative—fields for the employment of capital and intelligent labor. Many of these are so regarded simply for the reason that the best locations for their development are remote from the centres of trade and great waterways, and in many instances difficult of access by quick transportation. This possibly accounts for the general ignorance of the great opportunities which these industries offer for highly remunerative investment. Prominent, if not the principal, among these neglected industries are the vast fishery interests of the State, which, under energetic labor and scientific cultivation, would in a few years equal, if they did not surpass in the way of pecuniary profit, the aggregate value of the entire agricultural product of the State. The extent of the oyster territory is so vast, the supply so abundant and cheap, and so little labor and capital are required for its development, that its wonderful advantages and enormous profits once known, capital and labor will inevitably seek employment in what must eventually become a leading industry, far surpassing that of any other State in the Union.

On the eastern boundary, starting from the Rigolets, the small gut or strait connecting lakes Borgne and Pontchartrain, and following the shore line southward and westward around the mouths of the Mississippi River to the Texas line, there is a coast of about six hundred miles in length, if measured on

straight lines from point to point. Making an allowance for the curvatures of the coast, the shores of salt water bays, bayoux, inlets, lakes and islands, which fret this part of the State like net work, the littoral line will not fall short of fifteen hundred or two thousand miles. Taking into consideration the shelving, shallow beach adjacent to it, experts well acquainted with its geographical features estimate that the area suitable to planting and growing oysters is double the amount of acreage available in all the other States of the Union combined. By far the larger portion of this extended coast is dotted by expanded natural oyster beds, originally, that is in a state of nature, only distant from each other a few miles. Those most accessible to speedy transportation to market have been in some cases almost entirely denuded, and others seriously impoverished by the constant fishing in and out of season. In other instances the fresh water from chronic river crevasses has occasionally but only temporarily injured the productive capacity of these beds. These injuries, however, are but occasional and temporary, as we have just said. The fecund, recuperative power of nature, in no way more strikingly illustrated than in the immense reproductive capacity of the oyster, soon replenishes the stock, whenever the depredations of the fishermen or the overflow of the fresh water cease and the beds are allowed to rest for a time.

Besides these natural beds, the coast abounds in suitable places to which the mollusk can be transplanted from the seed bed, and under proper care developed into an oyster which for the delicacy of its flavor cannot be excelled

the world over. East of the Mississippi river these natural beds are still numerous and transplanting is carried on to but a limited extent. Not only do these beds supply the wants of the people of the Lower Coast, but small quantities are shipped to the New Orleans market, and hundreds of poachers or "pirates"—so called—from Mississippi carry away annually hundreds of schooner loads of the shell fish.

The flavor of these bivalves here taken, although of excellent quality, compared with those of the Atlantic States, yet is by no means equal to those taken from the choice planting grounds across the Mississippi, going west from the great river. Bayou Cook, Grand Bayou, Bayou Lachuto, Grand Lake, Bayou Lafourche, Timbalier bay, Last Island, Barrataria bay, Vine island lake, Vermillion bay, and the Calcasieu grounds furnish the best, those of Bayou Cook having par excellence the highest reputation in the markets of Louisiana and the neighboring States, and bringing a correspondingly higher price.

The manner of cultivation, if it can be dignified with that name, and the methods of fishing and forwarding to market are of the most primitive character, and by them capabilities of production have been as yet hardly broached. The fishermen are mostly uneducated Austrians, from the Slavonic provinces, commonly known as "Tackoes." Small colonies of them "squat" on any available shore, generally along some stream, bay or lake emptying into the Gulf, regardless of the ownership of the land, erect their huts, and with a capital of a couple of pair of oyster tongs, a skiff or two, and a small stock of rough provisions, usually advanced by the dealers in the city, embark in the trade of fishing oysters. Few of them own luggers, or engage in the business of forwarding their oysters to market. From time to time they recruit their helpers from the freshly arrived of their countrymen, who, knowing neither the language or the country, go to "learn the trade" at nominal wages in a sort of apprenticeship, receiving as part compensation for their

labor board and lodging, such as it is.

The master fisherman or "captain" as he is termed, thus equipped and assisted, starts out in the planting season and transports from the natural bed skiff-loads of the shellfish, which he deposits in the brackish bayou or lake which he has selected near his cabin, marks his beds of "plants" with stakes to designate his ownership and keeps "watch and ward" over his possessions until his crop is ready to ship to market. Others do not plant at all, but only fish the natural oysters from the bed and sell to "luggermen." The planted oysters transferred from the natural beds where the sea water is very salt, soon feel the beneficial effect of their changed condition. The fresh water streams, draining the rich alluvial highlands, bring down in profusion infusoria and other low forms of vegetable and animal life on which the young oysters thrive. They commence immediately to fatten and alter the shape of their shells gradually from the lank and slim form somewhat similar to an irregular isosceles triangle, broad at the hinge and diminishing in breadth until they narrow down to what is commonly but erroneously called the mouth, forming somewhat of a wedgelike contour, to a more rotund or parabolic shape as they grow larger.

When sufficiently matured, say to an average length between four and six inches, the time of fattening and growth depending to a great extent on the size when transplanted and the richness and abundance of the food in the locality, the crop is ready for marketing. During the fattening process, however, the plants are subject to a variety of diseases, although not so numerous or so fatal as in the colder waters of the North Atlantic. Nor are they exempt from other destructive agencies. Schools of drum fish and sheepshead prey upon the beds, crushing the shells easily and devouring at times in a single night hundreds of barrels of oysters. Crabs also devour the young oyster, while a number of crustaceous borers find their way through the shells and kill the young brood. To guard against these depredations, although ineffectually in most cases,

pens formed of stakes driven in the bottom of the stream are erected around the plants.

The planting we have alluded to consists in strewing the natural young oysters in thin layers over a hard bottom, which has been previously selected and located, or at times artificially created by deposits of old shells. In gathering or "tonging" the oysters from the natural bed twenty barrels per day is considered a good day's work per hand. This, however, is rarely reached, owing to the unreliability and inferiority of the labor. The "Tackoes" are by disposition not an industrious people, and like all the people dwelling near the shores of the Mediterranean and the Adriatic they are inclined to the "*dolce far niente*," and are peculiarly sensitive from their former habitats to the effects of the cold northerners of the Gulf. Moreover, they are timid sailors and dread the sudden storms of our Southern waters. They are careless and heedless of waste, and it is a common practice, although contrary to law to "cull" the natural oysters and for that matter the plants as well, on shore or while under sail from the beds. The fatal effects in ruining the yield of oysters by this practice will be readily perceived when we state that it consists in scraping and knocking off the myriads of embryo young oysters which adhere to the older ones, and which should be dropped back into the water on the beds, to be thus preserved and matured, but instead are dropped on land or in the water away from the beds and there left to die. This is but one example of the thriftlessness of the ordinary run of "Tackoe" oyster fishermen. The report of the United States Fishery Commission of 1880 says: "The shipment of oysters from New Orleans has hitherto been of very small account and principally of fresh oysters. * * * Work is irregular because of the difficulty of getting oysters in sufficient quantity and when needed (owing mainly to the indisposition of the oystermen to work in bad weather.)"

There are no statistics at hand by which the total amount of the gathered crops can even be approximately esti-

mated. Prices vary very much, according to the weather and the season. Small natural unplanted oysters, commonly called "coons," suitable for planting, can ordinarily be purchased at from twenty-five cents to sixty cents per barrel, delivered free on board at the beds. Fully matured plants vary in price at the plant beds from one to two dollars per barrel, according to the reputation of the locality from which they come. These "barrels," however, are what are technically called "bank measure," that is, two "bank measure" barrels make about three barrels when sold in market. When the planter finds that this crop is sufficiently matured and fat, ready for market, say six or eight months after being transplanted, he bargains and sells to the "lugger man" on the ground. A few planters own or have their luggers and ship for their own account. The "luggermen" transport their purchases to market, generally to New Orleans. The trip to the city usually takes from two to three days, a part of the journey consisting in threading narrow, shallow and tortuous bayoux. Adverse head winds sometimes delay the passage so long that the cargoes are unmarketable on reaching their destination. Sometimes where practicable "cordelling," or hauling the luggers by horse or man power, is resorted to, and at times steam towage is employed, all of which, of course, is an element of further expense.

Arrived at New Orleans, the "luggerman" disposes of his load to the dealers, who buy and supply the local trade and ship to neighboring cities. Prices range according to the supply. Favorable winds may serve to bring in on the same day a large fleet of oyster-laden craft to "lugger bay," as their landing opposite the French market is called. The market consequently becomes overstocked and glutted. If to this is added simultaneously a sudden change of the weather, from cold to warm, a not unusual thing in this climate, the "luggerman" is forced to sell at a very heavy loss on purchase price, or unload his cargo into the river. Besides these adverse contingencies, there are the ordinary accidents of navigation,

such as grounding, and remaining so for days in the low tides in the shallow bayoux and lakes, and storms of several days duration, when the timid luggerman, who shortens sail ordinarily on the slightest rise of the wind, now anchors or "ties up" and awaits its cessation. Then, too, the cargo is subject to considerable risk of being killed while in transit. A violent collision with the bank or another vessel, a violent hammering on the deck, and even heavy peals of thunder, have been known to deaden the whole cargo, and if the weather be warm and the market not close at hand there ensues a complete loss.

With all these disadvantages, however, which could easily be obviated by prudent and proper precautions for their prevention, and in spite of the heedless, thriftless and primitive manner in which the trade is carried on, these Austrians in nearly every instance amass considerable profits, make what to them are handsome and respectable fortunes, and usually retire to their native land, there to live, with their few wants and the Continental cheapness of living, the balance of their lives in comparative affluence for people of their class. These fortunes are ordinarily realized in a few years, seldom more than ten or twelve. On retiring, the fisherman's hut and outfit, oyster beds, tools, boats, etc., are disposed of, with the good will of an established business, to some relative or friend whom he has imported to the country for the purpose, or perhaps to some of his helpers who have saved a little money. In some instances good round sums are realized by these sales. In others, the retiring vendor retains a share in the future business and draws a portion of the profits, occasionally paying flying visits to this country to look after his interests.

Most of these men can neither read nor write English or any other language, nor do they speak or understand any tongue save Slavonic, and when dealing with others than those of their own nationality, require the services of an interpreter. These small fortunes which they amass in so short a time generally consist of sums varying from \$5000 to \$15,000 or more. Considering the small-

ness of their operations, the lightness of the labor, the exceedingly limited character of their business in every respect, the utter want of scientific or practical knowledge of oyster culture possessed by them, the acquisition of such sums in so short a time is marvellous. And yet when we consider their manner of life and their immense profits hereafter shown, it is easily comprehended. They "squat" on any lands, public or private, for which they pay no rent. Hitherto they have paid no rent or taxes of any kind. They pay nothing for their oysters if they tong them themselves. They subsist largely on fish which are plentiful and easily caught at all seasons, supplemented by poultry, which they raise, and game of all kinds, which abounds in proper seasons. In some cases they reclaim a small portion of the marsh land in the neighborhood of their cabins by filling it in, and cultivate vegetables thereon. During the "close" season, when only small quantities of oysters are illegally or surreptitiously marketed they engage in other profitable pursuits. Their expenses are almost nil, outside of a small amount for store provisions and rough clothing, and their proceeds are almost all clear profit.

In addition to the sale and shipment of fresh oysters, large profits have been realized by canneries, which have been established from time to time, but as the oyster supply in their neighborhoods has been diminished by indiscriminate and unseasonable fishing, and prices have increased, these establishments have removed to more favorable and lower priced localities, where their material could be purchased almost at their own prices. The canned oysters thus shipped from Louisiana have always been of the poorest and cheapest quality, subjected to the "bloating" process by continued "floating" in fresh water, and then canned by some imperfect process which imparts to them a "woody" and unpleasant taste. All these practices have combined to give Louisiana oysters an unfavorable reputation in markets other than those of the State. Properly prepared and of the better quality, connoisseurs have

pronounced them equal if not superior to the best of Chesapeake bay or those of any of the other Eastern fisheries.

If we turn from this primitive, loose and careless method in which the oyster industry of Louisiana is at present carried on, and compare with it the skill, industry and science with which the cultivation is conducted in the Eastern States and in Europe, and then consider the vast area that the Louisiana oyster grounds present, the warm waters of the Gulf, the richness of the food, and the numerous other superior advantages which their situs affords, there dawns before us a field for investment, with such rich returns therefrom, as is scarcely presented anywhere else in the wide world in this or any other employment of men and money.

Let us for a moment illustrate the enormous profit accruing to these primitive planters and luggermen. A "bank" barrel of "coon" oysters will, when transplanted for six or eight months, increase to a barrel and a half by reason of the augmentation in size by growth. The "coon" oysters can be obtained free from the natural beds at no cost except the price of labor. If purchased they cost thirty cents per barrel. This barrel and a half is sold to the "lugger man" at from one to two dollars per barrel at the plant beds. When the "lugger man" sells at the city market he obtains from three to four dollars per "market" barrel, two "bank" barrels making three "market" barrels. Thus the bank "barrel" of fish which the lugger man has bought at \$2.00, brings him a barrel and a half (market), or from \$4.50 to \$6.00 per bank barrel. If the planter ships himself, he would obtain \$6.60 for what he has paid thirty cents, or obtained for nothing if he fished them. The same would be relatively true, only with a smaller amount of profit, where natural oysters are transplanted and so kept a few weeks simply to improve their condition by fattening before shipping.

As the trade is at present carried on, the planter gets the benefit of the first difference in the growth, and the lugger man the advantage of the difference between the "bank" and the market measure. Thus a person who both

plants and markets his oysters as we have said, would pay thirty cents a barrel "bank measure" and from that barrel he would gather a "bank" barrel and a half of mature, marketable oysters, which selling at say \$3.00 he would get \$6.60 for what he originally paid thirty cents. In other words a "bank" barrel of coon oysters worth thirty cents, expands into a "bank" barrel and a half of plants in six or eight months, which is two and a quarter "market" barrels, worth from \$3.00 to \$4.00 each. At \$3.00 per barrel the thirty-cent purchase becomes worth \$6.00; at \$4.00 per barrel, \$9.00. Of course these prices are predicated on the lowest average buying and selling rates and on the basis of large purchases and sales in an ordinarily favorable market. These profits would be immensely increased if the spawn were scientifically protected and the immature oyster were preserved from disease and other numerous enemies by proper precautions, now universally in vogue in the older countries and fully described in "The Oyster" by Prof. Brooks; Oelmer's "Life, History and Protection of the American Oyster"; the "Report of the United States Fishery Commission"; the reports of the Oyster Commissioners of many States and other American and European literature on the same subject.

That the field for investment is an inviting one, and is gradually becoming apparent as such to investors both within and without the State, (and must become still more so as the subject is investigated and studied), is shown by the formation of several incorporated companies who are now engaged in the development of the industry. Outside of many small individual efforts in that direction, several associations have been formed, prominent among which are the "Gulf and Bayou Cook Oyster Company, limited," which owns the major portion of the lands on Bayou Cook and the valuable planting grounds thereunto appertaining, and also the "Louisiana Fish and Oyster Co.," the latter of which is now in active operation, and the former will soon be, having just successfully terminated a long litigation with some of the Tackoe "squatter" fishermen. The leg-

islature of the State has recently passed prudent acts for the protection of the fisheries, reserving the natural beds, not heretofore granted, for public use during the "open" season, providing for a proper police, as well as the leasing and sale of State lands suitable to planting at extremely moderate rates, and exacting a minimum tax to execute the law. The right of fishing oysters is reserved to citizens of the State alone. This law, although imperfect in not closing for a longer period in each year the natural oyster beds which have become well nigh exhausted, so as to allow them to recuperate and to be restored to their pristine fruitfulness, will probably be amended and perfected by future assemblies, as the legislative mind becomes more educated on the subject, as it has been in the older States that have undergone the same experience in this respect. Of course, such improvement will be strenuously resisted by the uneducated fisherman and the avaricious luggerman and dealer, who look no further than to the present profits of the day, and care not for the future, although if they did but know it, they are more vitally and immediately interested than all others in the prevention of the ruin of the fisheries.

Perhaps such obstructions to improvements are always to be expected from the ignorant. In New Jersey, where such an extended closure of seed-beds was similarly opposed, (as it was in France and other countries,) the commissioners tell us "all the opposition offered at the outset to this system of protection has now disappeared, and those who were loudest in their protestations have acknowledged their unfounded prejudice and error. * * *

All the seedling grounds of Delaware

bay enjoy a rest of nine months and a half each year. As a result, the beds have increased in area, and new beds are continually forming, and the supply is increasing to a wonderful extent." If the legislature of Louisiana will follow the wise example of these older communities, also prevent the use of the natural beds except for seeding purposes, and thus compel and induce a proper cultivation of the oyster, a mine of untold wealth will be opened both for her own exchequer and her people.

The difficulties, dangers and delays of transportation are being rapidly overcome by railways and canals, some already built and others projected, penetrating the best oyster regions; and if capital be properly encouraged and protected in its investment, as it assuredly will be, the day is not far distant when the production will be immeasurably increased, the price for home consumption greatly reduced, and an export trade established which will supply the whole of the Western territory of the United States, from the Mississippi to the Pacific coast, at reduced prices. Not only to the capitalist is the field open, but to the skilled oyster culturists of Chesapeake and Delaware bays, Long Island Sound, and the shores of Connecticut, the State offers cheap oyster lands for sale or to rent, and a free supply of seed. To all such, with a minimum of capital and skilled industry and energy, she opens her arms to welcome them to a home on the verge of her "summer sea," beneath skies which hardly know what winter is, and to cheer them on to fortune and her own industrial development. This is no fair-seeming false promise, but one tendered in all sincerity, and based on facts which the writer has been careful to understate rather than to overestimate.

THE MOON ROCK AND JESSE WOOD'S BETHEL.

By Mrs. William B. Crenshaw.

Several years ago I made my first business venture in a small town in North Alabama as bookkeeper for a large lumber firm. I had been there but a short time when my employer came into the office one morning and requested me to go at once to Ashville on important business connected with the mills. "Court is now in session and you will most likely find all the interested parties there," he said. "My wife is very ill, and I cannot leave home just now; but I feel confident that you can attend to this business as well as myself."

Pleased with his confidence in my ability I willingly agreed to make the journey, glad of an opportunity to see more of the country.

Ashville was about thirty miles distant. The road leading to it lay across a spur of Sand Mountain, known as "The Backbone," and was too rough to be traveled in any manner except on horseback. This made me the more eager to go, as I was fond of riding and was provided with a good horse. Hurrying through my preparations, I set out to Ashville just as the hands of the great mill clock were creeping up to high noon.

Leaving the little town on the banks of the Coosa river, I rode slowly through the woods, enjoying their cool fragrance and listening dreamily to that weird, whispering music, never heard except in a pine forest. I reached the base of "The Backbone" and looked up its rugged sides, while tender recollections of my home in the Tennessee Mountains came trooping into my memory. A cool breeze, laden with the faint odor of sweet fern, rushed down to greet me, but a sudden burst of song from a bird near

at hand startled my horse and dispelled my dreams.

I looked up. Before me was one of the most remarkable objects upon which my eyes ever rested. From the flat surface of the top of "The Backbone" rose a huge bluff of sandstone, gleaming white as marble, its summit crowned with a rank growth of moss and ferns and masses of tangled vines which trailed far down its sides. Of the two sides presented to my view, one was an irregular mass of broken stone, the other a broad, perpendicular, unbroken wall, whose whiteness was intensified by a large, dark-red stain upon its face in the form of a crescent moon. At the foot of this wall grew a large mountain oak, and under its thick branches was a mound of stones about six feet in height, so carefully arranged as to attract one's immediate attention and to suggest the work of human hands in its construction.

The sun was setting, and in the red glow of its level rays the bluff looked like a vast white palace against the soft blue summer sky. I was so lost in wondering conjecture that I did not hear the tramp of an approaching horse's feet, and was not conscious of any presence on the mountain save my own, until a hearty voice asked: "Well, you've struck a riddle, have you?" I turned quickly to face my questioner, who proved to be the village doctor from Riverside, and I answered: "Yes, doctor, one equal to the Sphinx. Perhaps you can read it for me."

The doctor twisted his mustache meditatively. He was my first acquaintance and friend in Riverside, a man in middle life, who had seen something of the world, and possessed a marvelous

store of general information. I looked to him now for some explanation of the mystery which loomed up before us, for I was sure he could give me the information I desired. During a life-long residence in this country he had learned it thoroughly—its history and that of its people, its geology and its many incidents of war and adventure and tales of romance. He seemed weary now, and slowly dismounting he said: "We've only six miles further to go, and we can make that after moonrise. Let's rest here, and I will tell you all I know of 'The Moon Rock' and Jesse Wood's Bethel."

"You know," he said, after we were seated upon the moss near the mound of stones, "this entire country was once inhabited by the Creek Indians. Even when I was a boy, quite a number of them had their homes in the valley. One of the chiefs told me this legend of the 'Moon Rock':

"Long ago that beautiful valley was the home of a gentle, peace-loving people, known as 'the Beloved Children of the Great Spirit.' He often visited them in their homes and bestowed many benefits upon them. They lived in undisturbed prosperity until a neighboring chief, growing envious of their happiness, resolved to make war upon them. They, ignorant of any and every mode of warfare, were soon slain to the last man. This mountain top was the battlefield and hither the Great Spirit, hearing the death-cries of his children, hastened from the Happy Hunting Grounds, filled with mighty anger and grief. With the exception of the envious chief, he transformed all the painted, hostile warriors into the rattlesnakes which infest these mountains to this day. Then he laid the bodies of his murdered children tenderly away in the cavern under this rock, and shut them in forever, and no man has ever found an entrance to their sepulchre. From the chief's panting bosom he tore the heart, and with its warm, fast flowing blood he painted that crimson moon over their last resting place. When he had finished his work, he dropped the still bleeding, quivering heart upon that rock near you—see the stain it made—

where it was transformed into a vulture and fed upon the body it had once inhabited. And the Great Spirit's vengeance was completed."

A few moments of silence followed this recital, while the doctor filled and lighted his pipe. "Indian legends," he resumed, "have generally the two great characteristics of the people, blood-thirstiness and cruelty, and this one is no exception. No doubt it afforded to the savage mind a very satisfactory solution of that mystery of a crescent which is evidently beyond the reach of human hand. But a modern scientist will tell you that nature gave expression to one of her queerest freaks in the formation of that stone, and some day, when this vast area of mineral land is opened and all those little towns are populous cities, the Moon Rock will be to Alabama what the Natural Bridge is to Virginia." The doctor looked out over the valley, where the white moonbeams turned the river to silver and touched the village spires with their cool fingers, as if in his mind's eye he saw the cities of which he had spoken. But I did not leave him long to his musings.

"Is that mound of stones 'Jesse Wood's Bethel?' You spoke of it just now."

"Yes," he answered, "it is known over half the State as 'Jesse Wood's Bethel,' and was built by one of the most remarkable characters in its history.

"Jesse Wood's father was the first white settler in this part of the State, and Jesse, deprived during his infancy of a mother's love and care, grew up among the negroes and Indians, with scarcely more training than they. The father was a gambler and he taught Jesse all the tricks then known to the profession so thoroughly that when he reached his twenty-first year he was 'hard to beat' (to use his own expression), even by his teacher. During this time the country had received a great many more settlers, among whom the rough, gaming element predominated, and Jesse was soon the acknowledged leader of a band of young men, who by their lawless deeds terrorized the entire settlement for years.

"About the time my story begins, as they say in novels, a young evangelist,

whose reputation for forcible eloquence had preceded him, began a revival in Ashville. With a fiery zeal characteristic of the preachers of those days, he waked the sinners to a realization of their danger, and reaped richly from the fields which he found 'white to the harvest'. The meetings had been in progress for perhaps ten days, when Jesse concluded that it was time he and his friends were 'having some fun' as he expressed it. With him, to think was to act, and that night he and 'the boys' filed quietly into the church, while the congregation eyed them askance and wondered what mischief was brewing. They had previously agreed to remain quiet until a call was made for 'mourners,' by which time their course of action would probably be suggested to them by some incident of the meeting.

"They had not intended to listen to the sermon, and probably none of them did, save Jesse. His attention was chained, and conviction entered his heart. When the minister finished his sermon, and coming to the front of the altar asked in thunder tones, 'Who's on the Lord's side?' Jesse's magnificent form rose to its full height and his rich, penetrating voice said, so distinctly that all might hear, 'I am, from this day to the end of my life.'

"There was silence for a moment, the silence of astonishment; then his companions, construing this act into a signal for the fun to begin, laughed uproariously, and one of them, Jim Collins, said boisterously, 'Better git somebody ter shoot ye while ye air thar', Jess; mebbe ye'll stand some showin' fur heaven now.' 'I mean what I say,' said Jesse, in a firm voice, 'With God's help, I am going to be a *man*, 'en I wish ye all would choose, with me, the better way; but if ye air goin' ter stick ter the old life, we'll say goodbye now.' He waited a moment as if for some answer from them, then walked rapidly to the altar, while his companions silently, and with sullen faces, left the church.

"Jesse began to make preparation for entering upon the ministry, and, with that determination which was ever his distinguishing trait, he overcame every obstacle, and in two years from that

night he was an ordained minister. He became the beloved pastor of the church in Ashville, and once each month, in spite of wind and weather, he traveled this road to Riverside, where he preached to the plantation owners assembled in the little log church. He fulfilled every duty faithfully and conscientiously, and found peace and happiness as the years rolled by.

"His former comrades, in the meantime, had gone from bad to worse. Jim Collins had been tacitly given the leadership of the band, and his daring and deviltry stopped at nothing by which he could accomplish his ends. So it happened that when a band of robbers began to work these mountains, there were well-grounded suspicions that the two gangs were identical, and they were more feared than ever. Jesse, even in his wildest days, possessed a certain sense of right and honor, by which, with his great force of character, he had restrained them from doing what he would have termed 'dirty, mean tricks.' He had thought it perfectly right in the old days to win at cards and keep the winnings, provided the game was played fair, but highway robbery was quite another thing. His old friends steered clear of him, 'Cause we don't want none uv his durned preachin', Jim Collins declared. Jesse never sought them out nor attempted to preach to them, knowing that they had not forgiven him for what they considered his base desertion of them, and he hoped that time would soften their enmity.

"Jim Collins had once declared his intention of 'gettin' even with Jess,' and the opportunity was not long thereafter in coming. Jesse had filled his usual appointment at Riverside one Sunday in midsummer, and set out early Monday morning on his homeward journey. He was passing the village store when one of the planters hailed him, and going close to the horse's side said, 'Parson, I've a little package here which I would like for you to deliver to Lawyer Turner in Ashville. It contains three hundred dollars, and with you it will be safe from the robbers, for they'll never 'hold up' a poor preacher,' he added laugh-

ingly. Jesse took the package and after a short conversation he rode away, while his friend returned to the store, both unconscious of the fact that every word had been heard by one of 'Collins' Gang' on the opposite side of the street. Jesse was further detained by his horse going lame and having to be shod and it was late ere he left the village.

"The soft summer night had fallen and the golden light of a full moon was bathing the mountains in splendor when Jesse rode up the path singing:

'Rock of ages cleft for me,
Let me hide myself in thee.'

"He did not see a dark form lurking in the shadow of the Moon Rock, and he came fearlessly on sending the rich tones of his voice before him:

'In my hand no price I bring,
Simply to Thy cross I cling.'

"'Wall, ef ye haven't got it in yer hand hit's in yer pocket, pardner, en that'll do jest as well. S'pose yer hand hit over ter me, en ye kin jest keep on clingin' ez long ez ye like.' And Jim Collins stood out in the full moonlight face to face with his old friend. Jesse gave no sign of either alarm or astonishment as he drew up his horse and said quietly: 'I don't exactly ketch yer meanin,' Jim; couldn't ye make it a little plainer?' 'I kin make hit plain er'nough ef yer don't understand, though yer didn't use 'ter be so dull. Hit's jest this: I'm in despret need uv that money ye're got, 'en whut's more I'm goin' ter have hit. 'Not from me, Jim,' said Jesse. 'You know I mean whatever I say, 'en you can't have that money unless you take my life with it.' The firm lips closed over the words and his determined eyes looked straight into those of his foe.

"There was a flash of steel in the moonlight and the unflinching form of the preacher was covered by Jim's revolver.

"'Wall, I kin mighty quick take that, too, 'en I don't know but whut I ought ter do hit, any way, fur yer goin' back on yer friends like ye did. Now hit's one uv two things—ye kin give hit ter me 'en make hit all right with the Squire, he believes so in you, 'en I'll

leave the State—er ye kin keep hit, 'en, well, dead men tell no tales. I'll give yer ten minutes.' 'If ye give me ten years, I'd answer ye jest the same,' said Jesse. 'Then, I s'pose ye air ready ter die, pardner, but I'll give yer time ter say yer prayers,' said Jim, mockingly. 'That's all I ask,' said Jesse, and, dismounting, he knelt down near that oak, then a tiny sapling. 'Time's up Jess,' said the robber at length, and the preacher rose and stood with folded arms before him, the light of a firm resolve shining in his eyes. Jim raised his pistol and aimed it straight at his old friend's heart. 'I'll give ye one more chance, Jess, while I count three. One!' The preacher's form was statue-like in the moonlight. 'Two!' There was a rustle in the vines overhanging the Moon Rock above the robber's head, but it was unheard by the two men. Jesse closed his eyes, as he thought, upon life. 'Three' was never spoken by the robber.

"Two huge rattlesnakes, engaged in fierce combat above him, rolled over the cliff, and loosened a sharp, angular boulder, which crushed robber and snakes to the ground in its fall. The report of the pistol woke startled echoes, which mingled with the dying groans of the would-be murderer and the terrible hisses and angry rattling of the snakes; but the bullet meant for Jesse Woods had sped wide of its mark.

"He opened his eyes and beheld a scene which haunted him until his dying day. Before him lay the wounded robber, with the life blood oozing from a deep cut in his temple, while the maddened snakes writhed and twisted around him, burying their poisonous fangs in his face and neck. One glance at the stunned, bleeding form, half concealed by the bruised and quivering serpents, told Jesse that Jim Collins was beyond human aid. He hastened from the scene with heart and brain sick with horror, and rode swift as the wind to Ashville.

"Ere the dawn of a new day reddened the East he led a wondering crowd back to the Moon Rock, where lay the robber, still in the coils of the serpents, and rigid in death. The men made a grave

under that oak, and buried the robber, placing at the head the stone which caused his death. It also marked the spot upon which Jesse Woods had knelt to commit his soul to God, and he made it the foundation of his 'Bethel.' Whenever he passed this place he paused to place a stone upon the grave, and to thank God for his merciful deliverance from death. During the Civil War,

some soldier, supposing there was a hidden treasure under the stones, threw them to the ground, but Jesse persistently rebuilt the heap. He died at a good old age. No marble shaft marks his grave in the little church-yard, but here he has builded his own monument, and many generations will come and go ere Jesse's adventure is forgotten or his Bethel destroyed."



NOTES ON SOUTHERN PROGRESS.

THE new courthouse at Llano, Texas, is one of the finest in the Southwest. It cost \$50,000 and has just been completed. It is three stories high and the materials used in construction were pink granite and white marble, giving it a very handsome exterior. It is richly furnished and artistically decorated within.

A CHARTER of incorporation has been granted to the First National Fire Insurance Co., of Fredericksburg, Va., with a capital stock of \$300,000. The incorporators are John W. Bond, of Washington, D. C.; W. J. Mosley, of Philadelphia, Pa.; George D. Young, of Georgetown, D. C.; T. F. Meany, of Washington, D. C., and W. E. Towles, of Culpeper, Va. The company has been organized by the election of the following officers: W. J. Mosley, of Philadelphia, president, and E. W. Wallace, secretary. The principal office of the company for the transaction of business will be at Fredericksburg, Va.

THE Jacksonville Clearing Association, of Jacksonville, Fla., which represents four national and two State banks, has been in existence about a year and has proved a pronounced success. For the year ended July 31, 1893, the total exchanges were \$20,587,476, total balances \$3,758,879, average monthly exchanges \$1,715,623, average weekly exchanges \$359,913; total business transacted during the year \$24,346,356.

THE Galveston Chamber of Commerce will add an office building to the number of fine structures already erected in that city. C. H. McMaster has been selected chairman of a committee to make arrangements for its construction. The building is to be eight stories high and is to have all the essentials of a modern office building, with elevators, heat and light plants, etc. The ground floor will probably be used for a bank, and is to be pro-

vided with the necessary storage vaults, etc. This building will be the first of its kind in Galveston.

THE Mechanics & Traders' Insurance Co., of New Orleans, is now making the necessary alterations and improvements in their building on the corner of Carondelet and Common streets to fit it up as a first-class office building. When the changes are completed the company will have forty offices to rent, fitted up with all the modern improvements. There will be a wide and handsome entrance with tiled floor, and in addition a most complete and rapid elevator.

REPORTS from the vicinity of St. Augustine, Fla., are that considerable real estate is changing hands, and that much outside capital is being invested in the locality. In North City there is much activity in real estate transactions in the neighborhood of the San Marco Hotel. A tract of twelve acres just north of the hotel has been divided up into lots which are being sold rapidly. Half a dozen cottages are being planned by purchasers of the land and will soon be in course of construction.

THE Yazoo & Mississippi Valley Railroad Co. has applied for a permit to erect a \$54,000 elevator in New Orleans. The site selected is bounded by Howard, Perdido, Feret and Poydras streets. The contract for the work has been given to the firm of James Stewart & Co., of St. Louis, who built the two elevators at Southport.

SOME five or six years ago an English inventor sold to an American rubber manufacturer for a considerable amount a secret process for manufacturing cottonseed-oil into rubber. Since then this secret has become the property of the rubber trust. This process has been used ever since, and it is a matter of fact that large quantities of cottonseed-oil are

now being used by at least fifteen or sixteen rubber factories in the United States to produce a substitute for rubber. This is in the United States alone. I do not know to what extent this process is being used in England and on the Continent, but as it originated in England it is probably used to some extent there also. By this process the converted cottonseed-oil costs about seven cents per pound. The admixture of this substitute has been limited to about fifteen per cent., as it is not deemed advisable to exceed this amount without deteriorating the quality of the rubber product. With an annual production of 3,500,000 to 4,500,000 tons of cottonseed, the greater portion of which now finds no more economical use than as a fertilizer or else is wholly wasted, the possibilities of the development of this new industry seem limitless. The new use for the seed of the cotton plant is a striking illustration of the economy of nature in providing nothing that is without its use to mankind. For generations cottonseed was regarded only as a nuisance and millions of tons of it were thrown away. Now it is a source of great profit to the planter, having sold during the past season as high as \$22 per ton. As there are two pounds of seed for every pound of lint cotton the value of the seed to the planters has been as high as \$11 per bale of cotton—a snug profit out of waste.

THE indications are that Atlanta will soon add another to the list of massive buildings which now attract so much attention in the Gate City. A military organization which includes many of the wealthiest residents is the Gate City Guard. Its present armory is not suitable, and the board of trustees is now examining sites with the view of erecting a building which will include an armory and a large auditorium for concert, theatrical and lecture purposes. It is proposed to expend about \$85,000 in its erection.

THE exports of wheat from New Orleans during July aggregated 1,097,865 bushels, against 235,141 for the same month in 1895; and the corn exports for July this year amounted to 356,739 bushels, as compared with 111,998 in July, 1892. This gives an increase of 1,107,465 bushels for the two cereals, or nearly 300 per cent.

AUDITOR BLOOMFIELD, of the New Orleans custom house, reports the receipts of bananas at that port for the past fiscal year as follows: British Honduras, 17,500 bunches; Costa Rico, 65,632 bunches; Guatemala, 53,300 bunches; Honduras, 165,654 bunches; Nicaragua, 101,000 bunches, and Colombia, 110,300 bunches—total, 513,386 bunches valued at \$160,834.

THE proposed system of sewers to be built by the city of Macon, Ga., promises to place that community among those having the best sanitary improvements in the country. Mr. Samuel Gray, the well-known sanitary engineer, of Providence, R. I., has been engaged to prepare the plans for the work, which will be under the immediate supervision of the city engineer. About thirty miles of pipe will be laid on the principal business and residence streets at an average cost of \$6500 per mile. The probability is that vitrified pipe, such as is made in Macon, will be used, thus much of the \$200,000 to be spent on the system will go to home industries. The surveys are now being made.

THERE has just been sawed at O'Neill's mill in Jacksonville, Fla., a cargo of Florida mahogany belonging to the South Florida Lumber Company of Cocoanut Grove. The lumber produced is capable of a fine finish, and is used for furniture, newell posts, balusters, etc. It runs small in size, but in quality and appearance resembles San Domingo mahogany.

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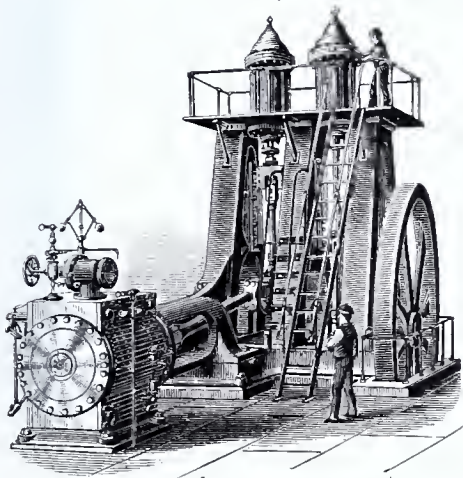
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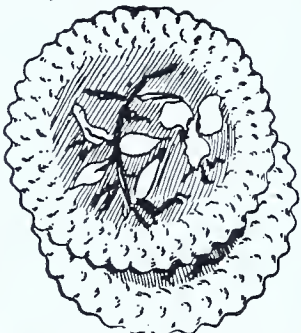
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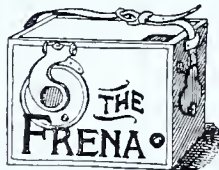
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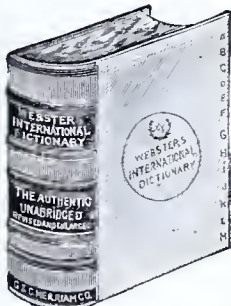
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	Miles.		Miles
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Virginia Midland Division.....	339	Western North Carolina Division.....	374
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